

**** Please return all attachments with search results. Thanks.**

Access DB# 186984

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: MOLLY CEPERLEY Examiner #: 59757 Date: 04/25/06
Art Unit: 1641 Phone Number: 2-0813 Serial Number: 10/692,411
Mail Box and Bldg/Room Location: Rem 3A51 Results Format Preferred (circle) PAPER DISK E-MAIL

↳ Rem 3C70

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: 08/09/00

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

each of

① Please search for the conjugates of claims 16-22 i.e. each of structures (A) and (B).

Search suggestion: Search each of the cyclic portions of the structures (A) and (B) leaving all positions open to substitution. Combine with terms: carbohydrate, sugar, dextran, polysaccharide, albumin, nucleic acid, polypeptide, solid support, gel (see page (a)), peptide, saccharide.

The conjugates are prepared by a Diels-Alder cycloaddition reaction involving a diene and a dienophile

See examples of the structures on attached pages.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

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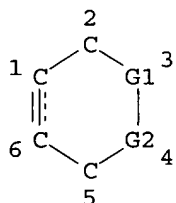
117

=> d que stat 185

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L68      QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
L69      QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L70      QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
NUCLEOTID? OR TETRANUCLEOTID?
L71      QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
EOSID?
L72      QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
HARID?
L73      QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L74      QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
L75      QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L76      QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
L77      QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
X?
L78      QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
(DIELS(W)ALDER?)
L79      QUE ABB=ON PLU=ON DIENOPHIL?
L80 (    264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70
OR L71 OR L72 OR L73 OR L74 OR L75)
L81 (    174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
L82      SEL PLU=ON L81 1- RN :      5288 TERMS
L83 (    5288) SEA FILE=REGISTRY ABB=ON PLU=ON L82
L84      STR

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considered.
06/20/06
MEC

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VAR G1=C/N
VAR G2=C/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

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STEREO ATTRIBUTES: NONE

L85 336 SEA FILE=REGISTRY SUB=L83 SS6 FUL L84

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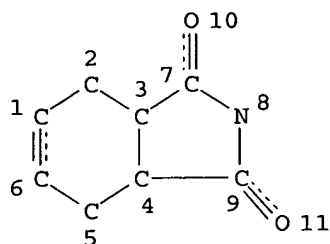
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336 ANSWERS

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L102 /STR



NODE ATTRIBUTES:

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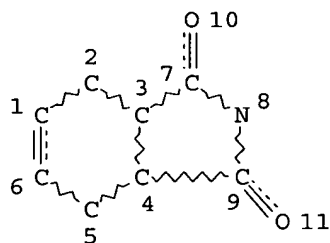
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RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L103 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L104 (169200)SEA FILE=REGISTRY SSS FUL L103

L105 (7450)SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES

L106 (22513)SEA FILE=REGISTRY SUB=L104 SSS FUL L102

L107 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L105 OR L106

=> d que stat l182

L7 QUE ABB=ON PLU=ON SOLID(3A) SUPPORT?

L8 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER? OR NANOSPHER?

L9 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR SPHERIC?)

L10 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (WALL? OR WELL? OR PLATE?)

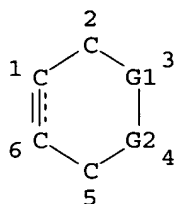
L11 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?

L12 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)

L13 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O

L14 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L15 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L16 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L17 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L18 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L19 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L20 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)
 L23 QUE ABB=ON PLU=ON DIENOPHIL?
 L31 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY
 <2001 OR REVIEW/DT
 L54 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L55 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L56 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L57 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L58 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L59 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L60 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L61 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L62 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L63 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L64 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)
 L65 QUE ABB=ON PLU=ON DIENOPHIL?
 L66 (264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L63 (5A) (L54 OR L55 OR L56
 OR L57 OR L58 OR L59 OR L60 OR L61)
 L67 174 SEA FILE=HCAPLUS ABB=ON PLU=ON (L64 OR L65) (L) (L66 OR L62)
 L68 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L69 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L70 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L71 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L72 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L73 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L74 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)

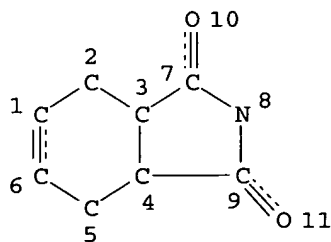
L75 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L76 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L77 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L78 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W)ALDER?)
 L79 QUE ABB=ON PLU=ON DIENOPHIL?
 L80 (264261)SEA FILE=HCAPLUS ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70
 OR L71 OR L72 OR L73 OR L74 OR L75)
 L81 (174)SEA FILE=HCAPLUS ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
 L82 SEL PLU=ON L81 1- RN : 5288 TERMS
 L83 (5288)SEA FILE=REGISTRY ABB=ON PLU=ON L82
 L84 STR



VAR G1=C/N
 VAR G2=C/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

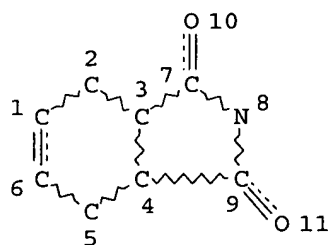
STEREO ATTRIBUTES: NONE
 L85 336 SEA FILE=REGISTRY SUB=L83 SSS FUL L84
 L102 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L103 STR

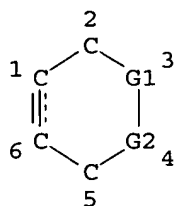


NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

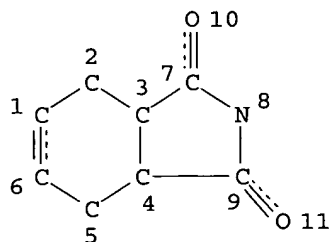
L104 (169200) SEA FILE=REGISTRY SSS FUL L103
 L105 (7450) SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES
 L106 (22513) SEA FILE=REGISTRY SUB=L104 SSS FUL L102
 L107 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L105 OR L106
 L108 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L109 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L110 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L111 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L112 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L113 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L114 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L115 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L116 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L117 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L118 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W)ALDER?)
 L119 QUE ABB=ON PLU=ON DIENOPHIL?
 L120 (264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L117 (5A) (L108 OR L109 OR
 L110 OR L111 OR L112 OR L113 OR L114 OR L115)
 L121 (174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L118 OR L119) (L) (L120 OR
 L116)
 L122 SEL PLU=ON L121 1- RN : 5288 TERMS
 L123 (5288) SEA FILE=REGISTRY ABB=ON PLU=ON L122
 L124 STR



VAR G1=C/N
 VAR G2=C/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

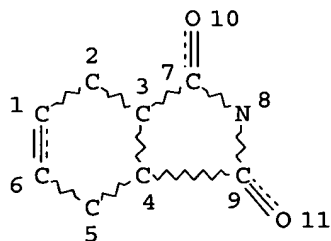
STEREO ATTRIBUTES: NONE
 L125(336)SEA FILE=REGISTRY SUB=L123 SSS FUL L124
 L126(20721)SEA FILE=HCAPLUS ABB=ON PLU=ON L125
 L127 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY
 <2001 OR REVIEW/DT
 L128(16464)SEA FILE=HCAPLUS ABB=ON PLU=ON L126 AND L127
 L129 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L130 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

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L131( 169200)SEA FILE=REGISTRY SSS FUL L130
L132( 7450)SEA FILE=REGISTRY ABB=ON PLU=ON L131 AND OC5/ES
L133( 22513)SEA FILE=REGISTRY SUB=L131 SSS FUL L129
L134( 29853)SEA FILE=REGISTRY ABB=ON PLU=ON L132 OR L133
L135( 14197)SEA FILE=HCAPLUS ABB=ON PLU=ON L134
L136( 12024)SEA FILE=HCAPLUS ABB=ON PLU=ON L135 AND L127
L137 28457 SEA FILE=HCAPLUS ABB=ON PLU=ON L128 OR L136
L138 QUE ABB=ON PLU=ON PROTEINS+PFT,OLD/CT
L139 QUE ABB=ON PLU=ON PEPTIDES+PFT,OLD/CT
L140 QUE ABB=ON PLU=ON "PEPTIDES, REACTIONS"+PFT,OLD,NT/CT
L141 QUE ABB=ON PLU=ON "PROTEINS, REACTIONS"+PFT,OLD,NT/CT
L142 QUE ABB=ON PLU=ON "NUCLEIC ACIDS"+PFT,OLD/CT
L143 QUE ABB=ON PLU=ON "NUCLEIC ACIDS, REACTIONS"+PFT,OLD,N
T/CT
L144 QUE ABB=ON PLU=ON "ANTIBODIES AND IMMUNOGLOBULINS"+PFT
,OLD,NT/CT
L145 QUE ABB=ON PLU=ON HEMOCYANINS+PFT,OLD,NT/CT
L146 QUE ABB=ON PLU=ON ALBUMINS+PFT,OLD,NT/CT
L147 QUE ABB=ON PLU=ON "ALBUMINS, BIOLOGICAL STUDIES"+PFT,O
LD,NT/CT
L148 QUE ABB=ON PLU=ON GLOBULINS+PFT,OLD,NT/CT
L149 QUE ABB=ON PLU=ON "GLOBULINS, BIOLOGICAL STUDIES"+PFT,
OLD,NT/CT
L150 QUE ABB=ON PLU=ON "DIELS-ALDER REACTION"+PFT,OLD,NT/CT
L151 QUE ABB=ON PLU=ON "DIELS-ALDER REACTION KINETICS"+PFT,
OLD,NT/CT
L152 QUE ABB=ON PLU=ON DIENOPHILES+PFT,OLD,NT/CT
L153 QUE ABB=ON PLU=ON "IMMOBILIZATION, MOLECULAR OR CELLUL
AR"+PFT,OLD,NT/CT
L154 QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD/CT
L155 QUE ABB=ON PLU=ON CARBOHYDRATES+PFT,OLD/CT
L156 QUE ABB=ON PLU=ON SUGARS+PFT,OLD/CT
L157 QUE ABB=ON PLU=ON SACCHARIDES+PFT,OLD,NT/CT
L158 QUE ABB=ON PLU=ON MONOSACCHARIDES+PFT,OLD,NT/CT
L159 QUE ABB=ON PLU=ON POLYSACCHARIDES+PFT,OLD,NT/CT
L160 QUE ABB=ON PLU=ON OLIGOSACCHARIDES+PFT,OLD,NT/CT
L161 QUE ABB=ON PLU=ON DEXTRAN+PFT,OLD,NT/CT
L164 QUE ABB=ON PLU=ON ?CONJ? OR ?COUPL? OR ?LINK?
L165 296 SEA FILE=HCAPLUS ABB=ON PLU=ON L137 AND ((L138 OR L139 OR
L140 OR L141 OR L142 OR L143 OR L144 OR L145 OR L146 OR L147
OR L148 OR L149)) (L) L164)
L166 198 SEA FILE=HCAPLUS ABB=ON PLU=ON L137 AND ((L155 OR L156 OR
L157 OR L158 OR L159 OR L160 OR L161)) (L) L164)
L167 1284 SEA FILE=HCAPLUS ABB=ON PLU=ON (L85 OR L107) (L) (L20 OR L164)

L168 320 SEA FILE=HCAPLUS ABB=ON PLU=ON (L165 OR L166) AND L167
L169 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L168 AND (L22 OR L23 OR (L150
OR L151 OR L152 OR L153 OR L154))
L170 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L168 AND (L22 OR L23 OR (L150
OR L151 OR L152))
L171 96 SEA FILE=HCAPLUS ABB=ON PLU=ON (L169 OR L170)
L172 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L171 AND (L7 OR L8 OR L9 OR

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L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19)
 L174 78 SEA FILE=HCAPLUS ABB=ON PLU=ON L172 AND CONJUG?/OBI
 L180 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L137
 L181 94 SEA FILE=HCAPLUS ABB=ON PLU=ON L180 OR L174
 L182 94 SEA FILE=HCAPLUS ABB=ON PLU=ON L181 AND L31

=> d que nos 1208

L6 QUE ABB=ON PLU=ON IMMOBIL?
 L7 QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
 L8 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER? OR NANOSPHER?
 L9 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR SPHERIC?)
 L10 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (WALL? OR WELL? OR PLATE?)
 L11 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
 L12 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L13 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L14 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI NUCLEOTID? OR TETRANUCLEOTID?
 L15 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L16 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L17 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L18 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L19 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L20 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L21 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR (DIELS (W)ALDER?)
 L23 QUE ABB=ON PLU=ON DIENOPHIL?
 L31 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY<2001 OR REVIEW/DT
 L68 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L69 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L70 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI NUCLEOTID? OR TETRANUCLEOTID?
 L71 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L72 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L73 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L74 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L75 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L76 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)

L77 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L78 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS(W)ALDER?)
 L79 QUE ABB=ON PLU=ON DIENOPHIL?
 L80 (264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70
 OR L71 OR L72 OR L73 OR L74 OR L75)
 L81 (174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
 L82 SEL PLU=ON L81 1- RN : 5288 TERMS
 L83 (5288) SEA FILE=REGISTRY ABB=ON PLU=ON L82
 L84 STR
 L85 336 SEA FILE=REGISTRY SUB=L83 SSS FUL L84
 L102 STR
 L103 STR
 L104 (169200) SEA FILE=REGISTRY SSS FUL L103
 L105 (7450) SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES
 L106 (22513) SEA FILE=REGISTRY SUB=L104 SSS FUL L102
 L107 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L105 OR L106
 L183 22 SEA FILE=REGISTRY ABB=ON PLU=ON (L85 OR L107) AND MEDLINE/LC

 L191 QUE ABB=ON PLU=ON GLYCOCONJUGATES+PFT,OLD,NT/CT
 L192 QUE ABB=ON PLU=ON CARBOHYDRATES+PFT,OLD,NT/CT
 L193 8017 SEA FILE=MEDLINE ABB=ON PLU=ON L183
 L194 6456 SEA FILE=MEDLINE ABB=ON PLU=ON L193 AND (L191 OR L192)
 L196 5655 SEA FILE=MEDLINE ABB=ON PLU=ON L194 AND L31
 L197 5 SEA FILE=MEDLINE ABB=ON PLU=ON L196 AND (L22 OR L23)
 L198 652 SEA FILE=MEDLINE ABB=ON PLU=ON L196 AND (L20 OR L21)
 L199 53385 SEA FILE=MEDLINE ABB=ON PLU=ON "DRUG CARRIERS"+PFT,OLD,NT/CT

 L200 QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD,NT/C
 T
 L201 48 SEA FILE=MEDLINE ABB=ON PLU=ON L198 AND (L199 OR L200)
 L203 21 SEA FILE=MEDLINE ABB=ON PLU=ON L201 AND (L6 OR L7 OR L8 OR
 L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR
 L18 OR L19)
 L204 138 SEA FILE=MEDLINE ABB=ON PLU=ON (L22 OR L23) AND (L20 OR
 ?CONJUG?)
 L205 27 SEA FILE=MEDLINE ABB=ON PLU=ON L204 AND L31
 L206 53 SEA FILE=MEDLINE ABB=ON PLU=ON L197 OR L203 OR L205
 L207 53 SEA FILE=MEDLINE ABB=ON PLU=ON L206 AND L31
 L208 27 SEA FILE=MEDLINE ABB=ON PLU=ON L207 AND L183

=> d que nos 1216

L6 QUE ABB=ON PLU=ON IMMOBIL?
 L7 QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
 L8 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
 MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSP
 HER? OR NANOSPHER?
 L9 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? O
 R SPHERIC?)
 L10 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (W
 ALL? OR WELL? OR PLATE?)
 L11 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
 L12 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L13 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L14 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?

L15 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L16 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L17 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L18 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L19 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L20 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L21 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W)ALDER?)
 L23 QUE ABB=ON PLU=ON DIENOPHIL?
 L31 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY
 <2001 OR REVIEW/DT
 L68 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L69 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L70 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L71 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L72 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L73 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L74 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L75 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L76 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L77 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L78 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W)ALDER?)
 L79 QUE ABB=ON PLU=ON DIENOPHIL?
 L80 (264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70
 OR L71 OR L72 OR L73 OR L74 OR L75)
 L81 (174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
 L82 SEL PLU=ON L81 1- RN : 5288 TERMS
 L83 (5288) SEA FILE=REGISTRY ABB=ON PLU=ON L82
 L84 STR
 L85 336 SEA FILE=REGISTRY SUB=L83 SSS FUL L84
 L102 STR
 L103 STR
 L104 (169200) SEA FILE=REGISTRY SSS FUL L103
 L105 (7450) SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES
 L106 (22513) SEA FILE=REGISTRY SUB=L104 SSS FUL L102
 L107 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L105 OR L106
 L184 12 SEA FILE=REGISTRY ABB=ON PLU=ON (L85 OR L107) AND EMBASE/LC
 L211 10 SEA FILE=EMBASE ABB=ON PLU=ON (L22 OR L23) AND L184
 L212 3247 SEA FILE=EMBASE ABB=ON PLU=ON L184 AND (L20 OR L21)
 L213 556 SEA FILE=EMBASE ABB=ON PLU=ON L212 AND ?CONJUG?
 L214 293 SEA FILE=EMBASE ABB=ON PLU=ON L213 AND (L6 OR L7 OR L8 OR L9
 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18
 OR L19)

L215 201 SEA FILE=EMBASE ABB=ON PLU=ON (L211 OR L214) AND L31
 L216 15 SEA FILE=EMBASE ABB=ON PLU=ON L215 AND (L22 OR L23 OR
 ?DIENE?)

=> d que 1231

L223 6 SEA FILE=WPIX ABB=ON PLU=ON (RAFTSB/DCN OR RAOSXP/DCN)
 L224 6 SEA FILE=WPIX ABB=ON PLU=ON (66683-0-0-0/KW OR 978360-1-0-0/K
 W)
 L225 6 SEA FILE=WPIX ABB=ON PLU=ON L223 OR L224
 L226 15107 SEA FILE=WPIX ABB=ON PLU=ON ((BIOCONJ?/BIX OR (BIO/BIX(W) CONJ
 ?/BIX)) OR ?CONJUG?/BIX) (15A) ((CYCLOADD?/BIX OR (CYCLO/BIX(W) AD
 DITION?/BIX) OR (DIELS/BIX(W) ALDER?/BIX)) OR (DIENOPHIL?/BIX)
 OR ?DIENE?/BIX)
 L227 QUE ABB=ON PLU=ON D05-H10/MC
 L228 12 SEA FILE=WPIX ABB=ON PLU=ON (L225 OR L226) AND L227
 L229 33 SEA FILE=WPIX ABB=ON PLU=ON L227 AND (L225 OR (CYCLOADD?/BIX
 OR (CYCLO/BIX(W) ADDITION?/BIX) OR (DIELS/BIX(W) ALDER?/BIX)) OR
 (DIENOPHIL?/BIX))
 L230 38 SEA FILE=WPIX ABB=ON PLU=ON (L228 OR L229)
 L231 15 SEA FILE=WPIX ABB=ON PLU=ON L230 AND (AY<2001 OR PY<2001 OR
 PRY<2001)

=> d his 1237

(FILE 'BIOSIS, BIOTECHNO, DRUGU' ENTERED AT 13:27:57 ON 26 MAY 2006)
 L237 2 S L236 AND (L22 OR L23)

=> d que nos 1237

L6 QUE ABB=ON PLU=ON IMMOBIL?
 L7 QUE ABB=ON PLU=ON SOLID(3A) SUPPORT?
 L8 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
 MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSP
 HER? OR NANOSPHER?
 L9 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? O
 R SPHERIC?)
 L10 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W) TITER)) (4A) (W
 ALL? OR WELL? OR PLATE?)
 L11 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
 L12 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W) MOLECULE?)
 L13 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L14 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L15 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L16 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L17 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L18 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W) HYDR?)
 L19 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L20 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W) CONJ?)
 L21 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W) ADDITION?) OR

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(DIELS (W) ALDER?)
L23      QUE ABB=ON PLU=ON DIENOPHIL?
L31      QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY
<2001 OR REVIEW/DT
L68      QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W) MOLECULE?)
L69      QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L70      QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
NUCLEOTID? OR TETRANUCLEOTID?
L71      QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
EOSID?
L72      QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
HARID?
L73      QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L74      QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W) HYDR?)
L75      QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L76      QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W) CONJ?)
L77      QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
X?
L78      QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W) ADDITION?) OR
(DIELS (W) ALDER?)
L79      QUE ABB=ON PLU=ON DIENOPHIL?
L80 (    264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70
OR L71 OR L72 OR L73 OR L74 OR L75)
L81 (    174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
L82      SEL PLU=ON L81 1- RN :    5288 TERMS
L83 (    5288) SEA FILE=REGISTRY ABB=ON PLU=ON L82
L84      STR
L85      336 SEA FILE=REGISTRY SUB=L83 SSS FUL L84
L102     STR
L103     STR
L104 (    169200) SEA FILE=REGISTRY SSS FUL L103
L105 (    7450) SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES
L106 (    22513) SEA FILE=REGISTRY SUB=L104 SSS FUL L102
L107     29853 SEA FILE=REGISTRY ABB=ON PLU=ON L105 OR L106
L185     51 SEA FILE=REGISTRY ABB=ON PLU=ON (L85 OR L107) AND BIOSIS/LC
L186     11 SEA FILE=REGISTRY ABB=ON PLU=ON (L85 OR L107) AND BIOTECHNO/L
C
L188     10 SEA FILE=REGISTRY ABB=ON PLU=ON (L85 OR L107) AND DRUGU/LC
L232     38750 SEA L185 OR L186 OR L188
L233     600 SEA L232 AND (?CONJUG? OR BIOCONJUG?)
L234     51 SEA L233 AND (L22 OR L23 OR ?DIENE?)
L235     38 SEA L234 AND L31
L236     38 SEA L235 AND (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13
OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21)
L237     2 SEA L236 AND (L22 OR L23)

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=> dup rem l182 l231 l208 l216 l237

FILE 'HCAPLUS' ENTERED AT 13:40:20 ON 26 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'WPIX' ENTERED AT 13:40:20 ON 26 MAY 2006

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FILE 'MEDLINE' ENTERED AT 13:40:20 ON 26 MAY 2006

FILE 'EMBASE' ENTERED AT 13:40:20 ON 26 MAY 2006
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FILE 'BIOSIS' ENTERED AT 13:40:20 ON 26 MAY 2006

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PROCESSING COMPLETED FOR L182

PROCESSING COMPLETED FOR L231

PROCESSING COMPLETED FOR L208

PROCESSING COMPLETED FOR L216

PROCESSING COMPLETED FOR L237

L242 145 DUP REM L182 L231 L208 L216 L237 (8 DUPLICATES REMOVED)

ANSWERS '1-94' FROM FILE HCAPLUS

ANSWERS '95-107' FROM FILE WPIX

ANSWERS '108-131' FROM FILE MEDLINE

ANSWERS '132-144' FROM FILE EMBASE

ANSWER '145' FROM FILE BIOSIS

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 13:40:29 ON 26 MAY 2006

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 19, 2006 (20060519/UP).

=> d ibib ed ab hitind hitstr

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' -
CONTINUE? (Y)/N:y

L242 ANSWER 1 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2001:817076 HCAPLUS

DOCUMENT NUMBER: 135:371959

TITLE: Method for immobilizing oligonucleotides employing the
Diels Alder cycloaddition
bio-conjugation method

INVENTOR(S): Pieken, Wolfgang; Wolter, Andreas; Sebesta, David P.;
Leuck, Michael; Latham-Timmons, Hallie A.; Pilon,
John; Husar, Gregory M.

PATENT ASSIGNEE(S): Proligo LLC, USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001084234	A1	20011108	WO 2001-US13956	20010501 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1287404	A1	20030305	EP 2001-932784	20010501 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003535317	T2	20031125	JP 2001-580595	20010501 <--
PRIORITY APPLN. INFO.:			US 2000-201561P	P 20000501 <--
			US 2001-265020P	P 20010130
			WO 2001-US13956	W 20010501

OTHER SOURCE(S): MARPAT 135:371959

ED Entered STN: 09 Nov 2001

AB This invention discloses a novel method for immobilizing mols. to a support in solid phase synthesis of DNA. Specifically, this invention discloses a method of immobilizing derivatized biomols., such as oligonucleotides and DNA, using cycloaddn. reactions, such as the Diels-Alder reaction. Included in this invention are the novel immobilized biomols. that can be prepared according to the method of this invention. Thus, glass slide CPG-bound maleimide silane reagent I was prepared and submitted to a Diels Alder cycloaddn. with cyclohexadiene-oligodeoxyribonucleotide to give the corresponding polymer supported DNA conjugate.

IC ICM G03C005-00

ICS C07H019-00; C07H019-04

CC 33-10 (Carbohydrates)

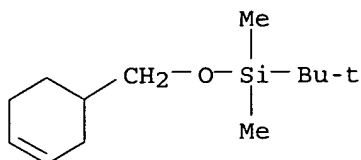
Section cross-reference(s): 6

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

- (Preparation)
(cyclohexadiene derivative, reaction products with carboxymethyl dextran supported maleimide; method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT **Diels-Alder reaction**
Solid phase synthesis
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT DNA
Oligodeoxyribonucleotides
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT 154916-94-6P, 2,4-Cyclohexadiene-1-methanol **290355-85-0P**
359867-65-5P 372107-87-4P 372107-88-5P 372107-89-6P 372107-90-9P
372107-91-0P 372107-92-1P 372107-93-2P 372107-94-3P 372107-95-4P
372107-99-8P 372108-00-4P 373654-38-7P 373654-39-8P 374121-75-2P
374121-77-4P 374121-80-9P 374121-81-0P 374121-82-1P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT 25322-68-3DP, Polyethylene glycol, cyclohexadiene derivative, reaction products with carboxymethyl dextran supported maleimide 134874-49-0DP, reaction products with carboxymethyl dextran supported maleimide 180257-58-3P 303740-28-5DP, reaction products with carboxymethyl dextran supported maleimide **372107-96-5DP**, glass polymer support 372107-98-7DP, carboxymethyl dextran supported 372107-98-7DP, carboxymethyl dextran supported, reaction products with polyethylene glycol derivs. 372520-13-3DP, glass polymer support 372536-62-4DP, carboxymethyl dextran supported 372536-63-5DP, carboxymethyl dextran supported 373654-40-1DP, glass polymer support 373654-41-2DP, glass polymer support 374121-78-5DP, polymer support
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT 108-30-5, Succinic anhydride, reactions 110-15-6, Succinic acid, reactions 128-53-0, N-Ethyl maleimide 919-30-2 1122-28-7, 4,5-Dicyanoimidazole 1468-95-7, 9-Anthracenemethanol **1679-51-2**, 1,2,3,6-Tetrahydrobenzylalcohol 4246-51-9 55750-62-4 114616-27-2 150347-54-9 180257-58-3D, polymer support 213758-83-9 312745-91-8 372107-97-6 372108-01-5 374121-76-3 374121-79-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- IT **290355-85-0P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)
- RN 290355-85-0 HCAPLUS

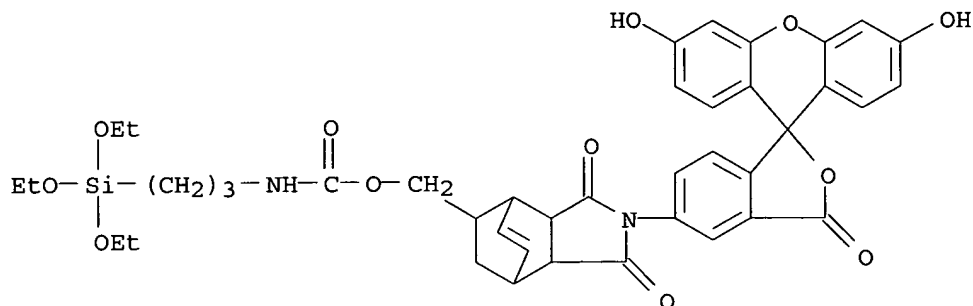
CN Silane, (3-cyclohexen-1-ylmethoxy) (1,1-dimethylethyl)dimethyl- (9CI) (CA INDEX NAME)



IT 372107-96-5DP, glass polymer support
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)

RN 372107-96-5 HCAPLUS

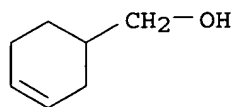
CN Carbamic acid, [3-(triethoxysilyl)propyl]-, [2-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2,3,3a,7a-tetrahydro-1,3-dioxo-4,7-ethano-1H-isoindol-8-yl]methyl ester (9CI) (CA INDEX NAME)



IT 1679-51-2, 1,2,3,6-Tetrahydrobenzylalcohol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)

RN 1679-51-2 HCAPLUS

CN 3-Cyclohexene-1-methanol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' -
 CONTINUE? (Y)/N:y

L242 ANSWER 2 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 1999:805212, HCAPLUS

DOCUMENT NUMBER: 132:104335

TITLE: Protein-assisted pericyclic reactions: an alternate hypothesis for the action of quantal receptors

AUTHOR(S): Radding, Wilson; Romo, Tod; Phillips, George N., Jr.

CORPORATE SOURCE: Department of Biochemistry and Cell Biology, Rice University, Houston, TX, 77005, USA

SOURCE: Biophysical Journal (1999), 77(6), 2920-2929

CODEN: BIOJAU; ISSN: 0006-3495

PUBLISHER: Biophysical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Dec 1999

AB The rules for allowable pericyclic reactions indicate that the photoisomerizations of retinals in rhodopsins can be formally analogous to thermally promoted **Diels-Alder** condensations of monoenes with retinols. With little change in the seven-transmembrane helical environment these latter reactions could mimic the retinal isomerization while providing highly sensitive chemical reception. In this way archaic progenitors of **G-protein-coupled** chemical quantal receptors such as those for pheromones might have been evolutionarily plagiarized from the photon quantal receptor, rhodopsin, or vice versa. The authors investigated whether the known structure of bacteriorhodopsin exhibited any similarity in its active site with those of the two known antibody catalysts of **Diels-Alder** reactions and that of the photoactive yellow protein. A remarkable three-dimensional motif of aromatic side chains emerged in all four proteins despite the drastic differences in backbone structure. MO calcns. supported the possibility of transient pericyclic reactions as part of the isomerization-signal transduction mechanisms in both bacteriorhodopsin and the photoactive yellow protein. It appears that reactions in all four of the proteins investigated may be biol. analogs of the organic chemists' chiral auxiliary-aided **Diels-Alder** reactions. Thus the light receptor and the chemical receptor subfamilies of the heptahelical receptor family may have been unified at one time by underlying pericyclic chemical

CC 6-3 (General Biochemistry)

IT 68-26-8, Retinol 116-31-4, all-trans-Retinal

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)

(protein-assisted pericyclic reactions in signaling mechanisms of the quantal receptors bacteriorhodopsin and photoactive yellow protein)

IT 68-26-8, Retinol 116-31-4, all-trans-Retinal

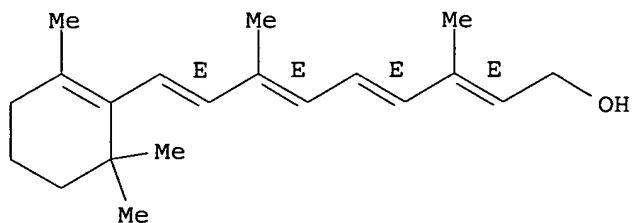
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)

(protein-assisted pericyclic reactions in signaling mechanisms of the quantal receptors bacteriorhodopsin and photoactive yellow protein)

RN 68-26-8 HCAPLUS

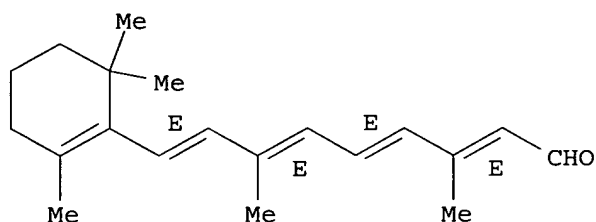
CN Retinol (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 116-31-4 HCAPLUS
CN Retinal (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 79 THERE ARE 79 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 3 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1998:490650 HCAPLUS

DOCUMENT NUMBER: 129:136439

TITLE: Preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels-Alder** and 1,3-dipolar **cycloaddition** reactions

INVENTOR(S): Pieken, Wolfgang; Hill, Ken; Eaton, Bruce; McGee, Danny; Vagle, Kurt; Gold, Larry; Stephens, Andrew

PATENT ASSIGNEE(S): Nexstar Pharmaceuticals, Inc., USA; Pieken, Wolfgang; Hill, Ken; Eaton, Bruce; McGee, Danny; Vagle, Kurt; Gold, Larry; Stephens, Andrew

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9830575	A1	19980716	WO 1998-US649	19980108 <--
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2277159	AA	19980716	CA 1998-2277159	19980108 <--

AU 9862406	A1	19980803	AU 1998-62406	19980108 <--
AU 747242	B2	20020509		
EP 968223	A1	20000105	EP 1998-904559	19980108 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001509828	T2	20010724	JP 1998-531248	19980108 <--
US 6737236	B1	20040518	US 1999-341337	19990708 <--
US 2003215801	A1	20031120	US 2001-845742	20010501 <--
PRIORITY APPLN. INFO.:			US 1997-34651P	P 19970108 <--
			US 1997-58206P	P 19970908 <--
			US 1997-780517	A2 19970108 <--
			WO 1998-US649	W 19980108 <--
			US 1998-51449	A2 19980406 <--
			US 1999-341337	A2 19990708 <--
			US 2000-201561P	P 20000501 <--
			US 2001-265020P	P 20010130

OTHER SOURCE(S): MARPAT 129:136439

ED Entered STN: 06 Aug 1998

AB This invention discloses a novel method for conjugating macromols. to other mol. entities. Specifically, this invention discloses a method for **conjugating** or derivatizing macromols., such as **oligonucleotides** and proteins, using **cycloaddn.** reactions, such as the **Diels-Alder** reaction or 1,3-dipolar **cycloaddns.** Included in the invention are the novel **bioconjugated** macromols. that can be prepared according to the method of the invention.

IC ICM C07H019-00

ICS C07H019-04; C10M107-00; C07C002-50; C07C002-02

CC 33-10 (Carbohydrates)

IT **Cycloaddition** reaction

(1,3-dipolar; preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels Alder** and 1,3-dipolar **cycloaddn.** reactions)

IT **Diels-Alder** reaction

(preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels Alder** and 1,3-dipolar **cycloaddn.** reactions)

IT Oligodeoxyribonucleotides

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels Alder** and 1,3-dipolar **cycloaddn.** reactions)

IT 111-28-4, 2,4-Hexadien-1-ol 3736-77-4 4856-87-5 5747-07-9,
3,5-Hexadien-1-ol 21090-30-2 40615-39-2 55145-14-7 99126-64-4
105039-63-2 139112-38-2 188682-72-6 210351-54-5 210351-67-0
210351-68-1 210351-69-2 210351-70-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels Alder** and 1,3-dipolar **cycloaddn.** reactions)

IT 173170-12-2P 210351-53-4P 210351-55-6P 210351-57-8P 210351-58-9P
210351-59-0P 210351-60-3P 210351-61-4P 210351-62-5P 210351-63-6P
210411-09-9P 210411-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and **bioconjugation** of oligodeoxyribonucleotides via **Diels Alder** and 1,3-dipolar **cycloaddn.** reactions)

IT 210351-64-7P 210351-65-8P 210351-66-9P 210406-15-8P
210406-16-9P 210406-17-0P 210406-18-1P

210476-51-0P 210476-52-1P 210476-54-3P 210476-61-2P 210476-62-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **bioconjugation** of oligodeoxyribonucleotides via
Diels Alder and 1,3-dipolar **cycloaddn.**
reactions)

IT 210406-15-8P 210406-16-9P 210406-17-0P

210406-18-1P

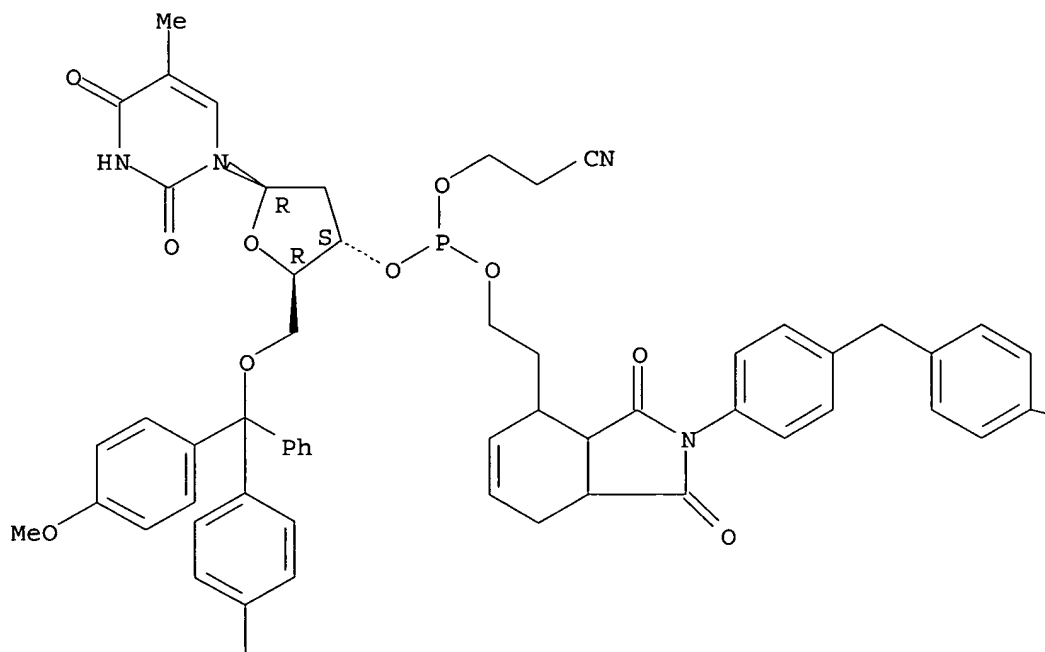
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **bioconjugation** of oligodeoxyribonucleotides via
Diels Alder and 1,3-dipolar **cycloaddn.**
reactions)

RN 210406-15-8 HCAPLUS

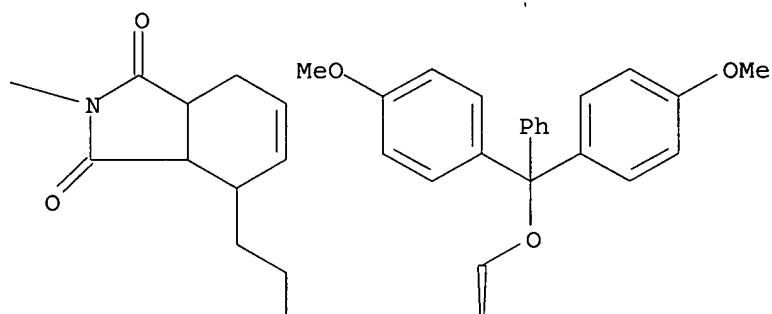
CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-, 3',3'''-
[methylenebis[4,1-phenylene(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-2H-isoindole-
2,4-diyl)-2,1-ethanediyl] bis(2-cyanoethyl) phosphite] (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

PAGE 1-A



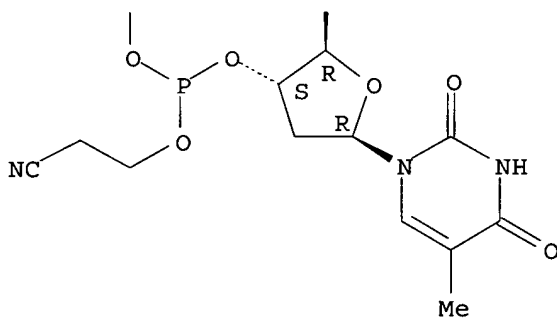
PAGE 1-B



PAGE 2-A



PAGE 2-B

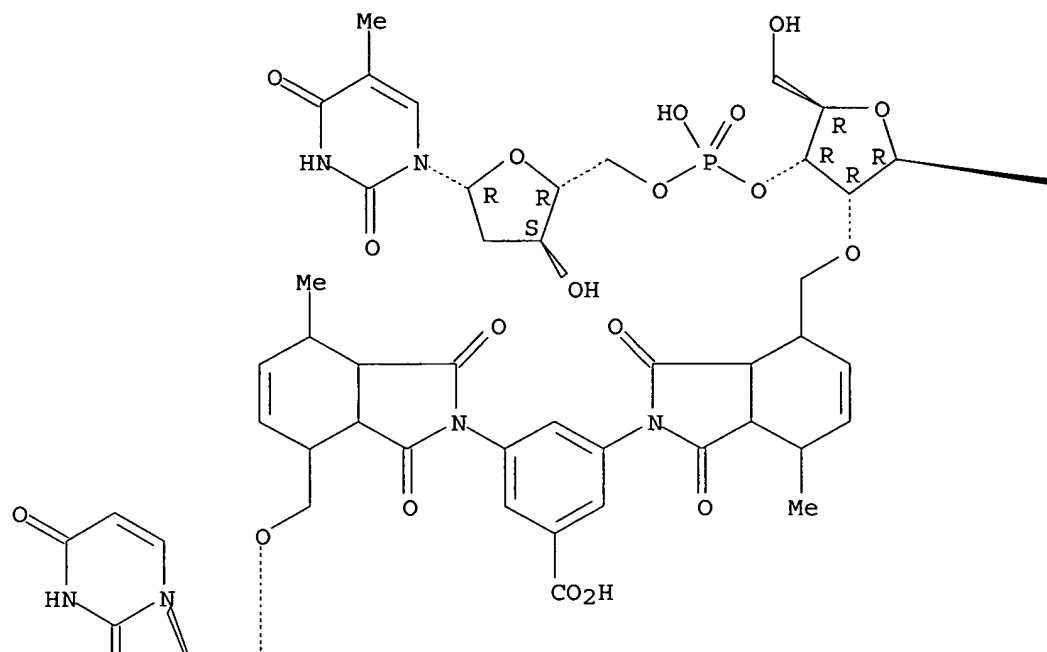


RN 210406-16-9 HCAPLUS

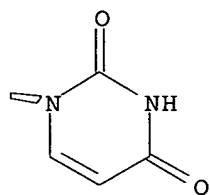
CN Uridine, 2',2'''-O-[(5-carboxy-1,3-phenylene)bis[(1,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-2H-isoindole-2,4-diyl)methylene]]bis[thymidyl-
(5'→3')-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

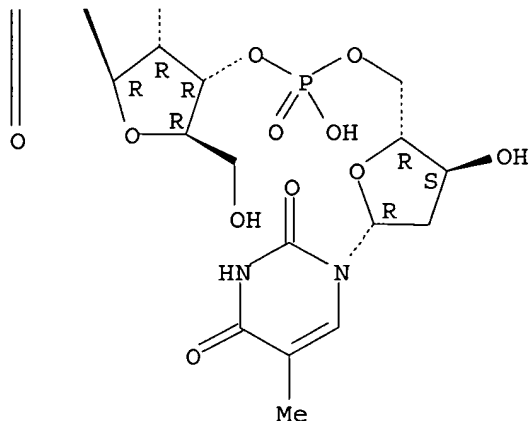
PAGE 1-A



PAGE 1-B



PAGE 2-A

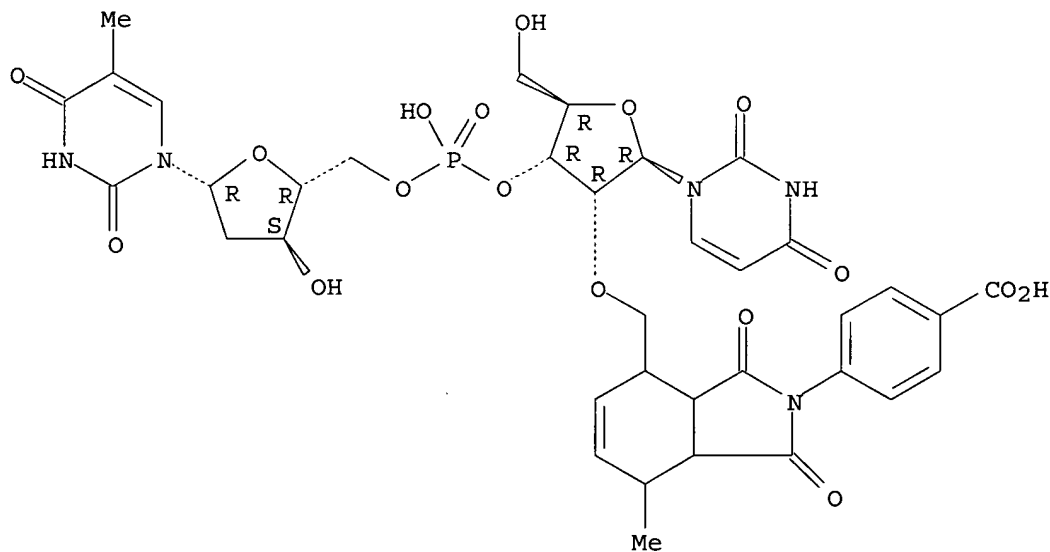


● Na

RN 210406-17-0 HCAPLUS

CN Thymidine, 2'-O-[[2-(4-carboxyphenyl)-2,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-1H-isoindol-4-yl]methyl]uridylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

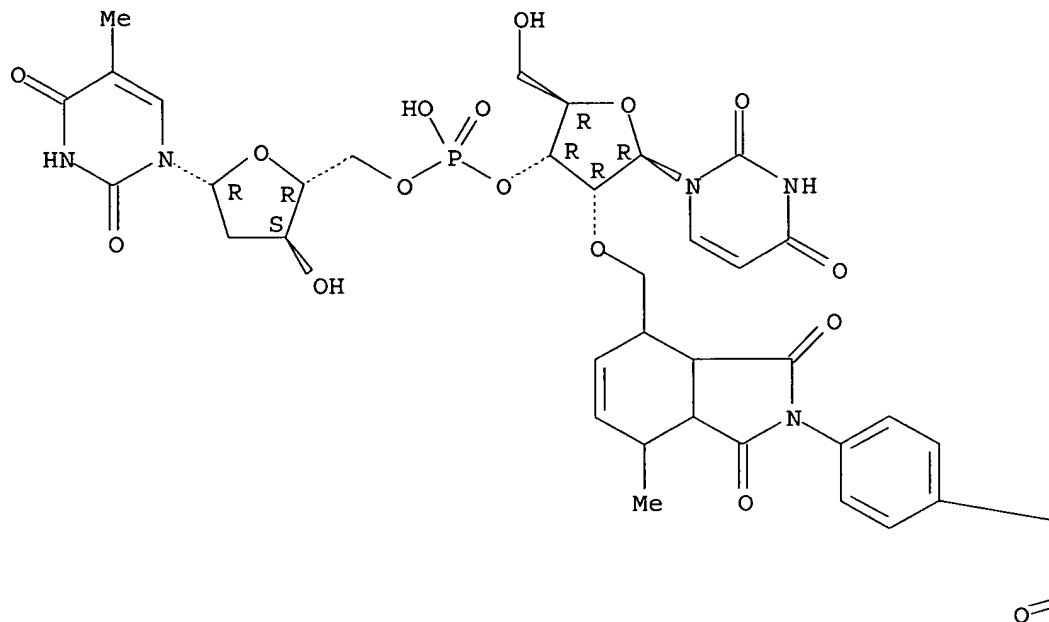


RN 210406-18-1 HCAPLUS

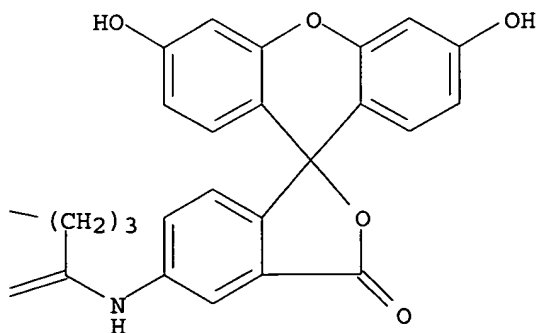
CN Thymidine, 2'-O-[[2-[4-[4-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-4-oxobutyl]phenyl]-2,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-1H-isoindol-4-yl]methyl]uridylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT:

1

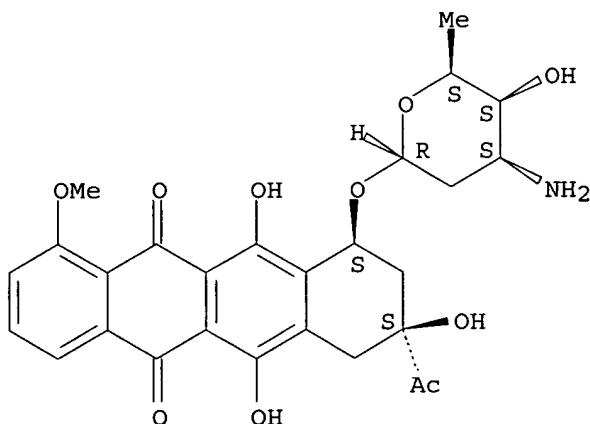
THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 4 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
 ACCESSION NUMBER: 1998:644696 HCAPLUS

DOCUMENT NUMBER: 130:47201
 TITLE: Enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**
 AUTHOR(S): Carter, Graham; White, Patricia; Fernie, Marie; King, Susan; McLean, Gordon; Titball, Richard; Carr, Frank J.
 CORPORATE SOURCE: Biovation Limited, AURIS Business Centre, Aberdeen, AB23 8XU, UK
 SOURCE: International Journal of Oncology (1998), 13(4), 819-825
 CODEN: IJONES; ISSN: 1019-6439
 PUBLISHER: International Journal of Oncology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 13 Oct 1998
 AB The authors have developed a new two-step method for targeting cytotoxic drugs to tumor cells. The method firstly involves the binding to tumor cells of antibody-phospholipase C immunoconjugates or fusion **proteins**. Further to washing or clearance of the immunoconjugates, liposomes are introduced which are specifically lysed at the tumor site by PLC to release their cytotoxic contents in the vicinity of the tumor cells. For two alternative human cell lines, a synergistic inhibition of cell proliferation was seen for combined treatment with a specific immunoconjugate and daunorubicin encapsulated liposomes. For tumor xenografts in mice, the combined treatment resulted in an inhibition of tumor growth although with no eradication of tumors at the doses used. The two-step antibody-PLC/liposome approach offers broad possibilities for the precise delivery of payloads of cytotoxic drugs to tumor sites.
 CC 1-6 (Pharmacology)
 Section cross-reference(s): 15, 63
 ST antibody phospholipaseC immunoconjugate fusion **protein**
 daunorubicin liposome delivery anticancer
 IT **Proteins, specific or class**
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (F; enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
 IT **Antibodies**
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (**conjugates**; enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
 IT Antitumor agents
 (enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
 IT **Drug delivery systems**
 (liposomes; enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
 IT **20830-81-3, Daunorubicin**
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)

)
 IT 9001-86-9, Phospholipase C
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
)
 IT 20830-81-3, Daunorubicin
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (enhanced antitumor effect of liposomal daunorubicin using antibody-phospholipase C **conjugates** or fusion **protein**)
)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



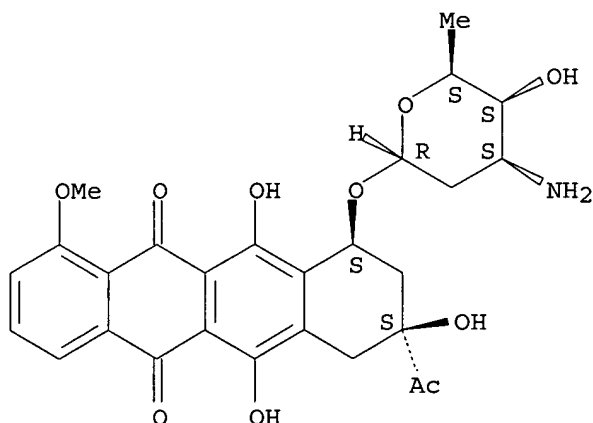
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 5 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
 ACCESSION NUMBER: 1993:420033 HCAPLUS
 DOCUMENT NUMBER: 119:20033
 TITLE: In vivo cytotoxicity and antineoplastic activity of a transferrin-daunorubicin **conjugate**
 AUTHOR(S): Lemieux, P.; Page, M.; Noel, C.
 CORPORATE SOURCE: Fac. Med., Univ. Laval, Ste-Foy, QC, G1K 7P4, Can.
 SOURCE: In Vivo (1992), 6(6), 621-7
 CODEN: IVIVE4; ISSN: 0258-851X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 24 Jul 1993
 AB Transferrin, a major iron-binding **protein** in the blood plasma, is an essential growth factor for proliferating malignant cells. Specific receptors bind transferrin which is then endocytosed into the cell. A transferrin-daunorubicin conjugate was used to target cancer cells. The in vitro and in vivo activity of free daunorubicin and the daunorubicin-transferrin conjugate was compared in cancer cells. The

conjugate was less toxic and more active on malignant cells than the free drug, while being less toxic for normal cells.

CC 1-6 (Pharmacology)
 Section cross-reference(s): 63
 ST transferrin daunorubicin **conjugate** antitumor toxicity
 IT Neoplasm inhibitors
 (daunorubicin-transferrin **conjugate** as)
 IT **Pharmaceutical dosage forms**
 (daunorubicin-transferrin **conjugate** as, for targeted
 antitumor therapy)
 IT **Transferrins**
 RL: BIOL (Biological study)
 (**conjugates**, with daunorubicin)
 IT **20830-81-3D**, Daunorubicin, transferrin **conjugate**
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (antitumor activity and toxicity of)
 IT **20830-81-3D**, Daunorubicin, transferrin **conjugate**
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (antitumor activity and toxicity of)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 6 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8
 ACCESSION NUMBER: 1988:197886 HCAPLUS
 DOCUMENT NUMBER: 108:197886
 TITLE: Trypanocidal activity of free and carrier bound
 daunorubicin
 AUTHOR(S): Golightly, L.; Brown, J. E.; Mitchell, J. B.; Brown,
 J. R.
 CORPORATE SOURCE: Trop. Dis. Chemother. Res. Unit, Sunderland Polytech.,
 Sunderland, SR1 3SD, UK
 SOURCE: Cell Biology International Reports (1988),
 12(2), 77-83
 CODEN: CBRPDS; ISSN: 0309-1651
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 11 Jun 1988
 AB Activities of a range of macromol. conjugates of daunorubicin against

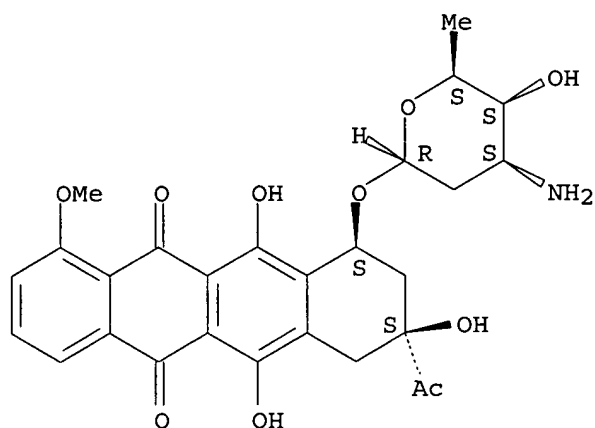
Trypanosoma brucei rhodesiense in vitro and in vivo are described and compared to those of free daunorubicin. Conjugates tested were daunorubicin attached to bovine serum **albumin** by (i) a labile glutaraldehyde linkage (D-BSAG), and (ii) a stable succinyl linkage (D-BSAS), daunorubicin covalently linked to **agarose beads** (D-AG), and daunorubicin adsorbed onto polyisobutylcyanoacrylate nanoparticles (D-PICA). Trypanocidal activity in vitro was retained in all except D-BSAS, whereas in vivo only D-BSAG had any activity. The results indicate that daunorubicin must be released from the conjugate before it can exert its activity.

- CC 1-5 (Pharmacology)
Section cross-reference(s): 10, 63
- ST daunorubicin complex **conjugate** trypanocide; **albumin** daunorubicin **conjugate** trypanocide; polyisobutylcyanoacrylate nanoparticle daunorubicin complex trypanocide; **agarose bead** nanoparticle **conjugate** trypanocide
- IT Drug bioavailability
(of daunorubicin, from **albumin** and **agarose bead conjugates** and poly(isobutylcyanoacrylate) nanoparticle complexes, as trypanocides)
- IT **Albumins, compounds**
RL: BIOL (Biological study)
(**conjugates**, with daunorubicin, as trypanocides)
- IT **Pharmaceutical dosage forms**
(nanoparticles, of daunorubicin with poly(isobutylcyanoacrylate), as trypanocides)
- IT **9012-36-6D, Agarose, conjugates** with daunorubicin 20830-81-3D, Daunorubicin, **conjugates** with **agarose beads**
RL: BIOL (Biological study)
(as trypanocides)
- IT **20830-81-3, Daunorubicin**
RL: BIOL (Biological study)
(free and poly(iso-Bu cyanoacrylate) nanoparticle-adsorbed, as trypanocides)
- IT **9012-36-6D, Agarose, conjugates** with daunorubicin 20830-81-3D, Daunorubicin, **conjugates** with **agarose beads**
RL: BIOL (Biological study)
(as trypanocides)
- RN 9012-36-6 HCAPLUS
- CN Agarose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 20830-81-3, Daunorubicin

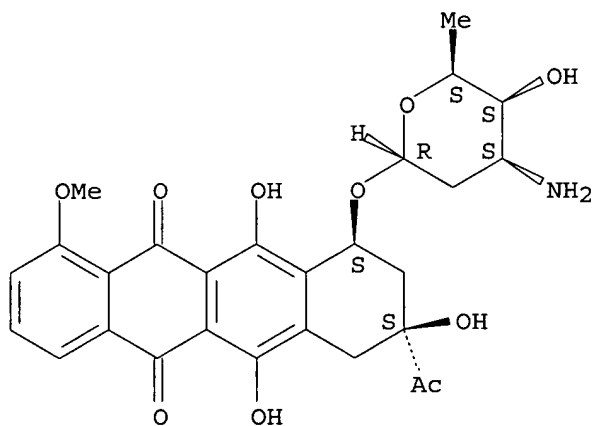
RL: BIOL (Biological study)

(free and poly(iso-Bu cyanoacrylate) nanoparticle-adsorbed, as trypanocides)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 7 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:15791 HCAPLUS

DOCUMENT NUMBER: 142:120462

TITLE: Therapeutic and diagnostic **conjugates** for use with multispecific antibodies

INVENTOR(S): McBride, William J.; Goldenberg, David M.; Noren, Carl; Hansen, Hans J.

PATENT ASSIGNEE(S): Immunomedics, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U.S. Ser. No. 150,654.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005002945	A1	20050106	US 2004-776470	20040211 <--
US 2002006379	A1	20020117	US 2001-823746	20010403 <--
US 6962702	B2	20051108		
US 2003198595	A1	20031023	US 2002-150654	20020517 <--
WO 2005077071	A2	20050825	WO 2005-US4177	20050211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:
US 1998-90142P P 19980622 <--
US 1998-104156P P 19981014 <--
US 1999-337756 A2 19990622 <--
US 1999-382186 B2 19990823 <--
US 2001-823746 A2 20010403
US 2002-150654 A2 20020517
US 2004-776470 A 20040211

OTHER SOURCE(S): MARPAT 142:120462

ED Entered STN: 07 Jan 2005

AB Disclosed are compds. that include two or more haptens conjugated by a spacer or a carrier. The haptens may include diethylenetriaminepentaacetate (DTPA), histamine-succinyl-glutamine (HSG), or combinations of DTPA and HSG. The compds. also includes an effector mol. which may be conjugated to one or more of the haptens, the spacer/carrier, or both. The effector mol. may be conjugated by a number of linkages including an ester linkage, an imino linkage, an amino linkage, a sulfide linkage, a thiosemicarbazone linkage, a semicarbazone linkage, an oxime linkage, an ether linkage, or combinations of these linkages. Also disclosed are methods of synthesizing the compds. and/or precursors of the compds.

IC ICM A61K039-00

INCL 424184100; 530403000

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 8, 9, 15

ST indium 111 DTPA **peptide conjugate** antibody

IT Imaging agents

(NMR contrast; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT **Proteins**

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)

(PAP (pokeweed antiviral **protein**), radiolabeled **conjugates**; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT Imaging agents

(acoustic imaging contrast agents; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT **Drug delivery systems**

(carriers; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT **Antibodies and Immunoglobulins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(chimeric; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT **Toxins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(diphtheria, radiolabeled **conjugates**; therapeutic and
diagnostic **conjugates** for use with multispecific antibodies)

IT **Drug delivery systems**
(emulsions; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Pseudomonas**
(endotoxin and exotoxin, radiolabeled **conjugates**; therapeutic
and diagnostic **conjugates** for use with multispecific
antibodies)

IT **Toxins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(enterotoxin A, radiolabeled **conjugates**; therapeutic and
diagnostic **conjugates** for use with multispecific antibodies)

IT **Antibodies and Immunoglobulins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(fragments; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Antibodies and Immunoglobulins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(humanized; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Drug delivery systems**
(immunotoxins; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Drug delivery systems**
(liposomes; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Drug delivery systems**
(micelles; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT **Antibodies and Immunoglobulins**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(monoclonal, iodo, labeled with iodine-125; therapeutic and diagnostic
conjugates for use with multispecific antibodies)

IT **Drug delivery systems**
(nanoparticles; therapeutic and diagnostic **conjugates** for use
with multispecific antibodies)

IT **Drug delivery systems**
(prodrugs; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT **Abrins**
Antisense oligonucleotides
RNA
Ricans
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(radiolabeled **conjugates**; therapeutic and diagnostic
conjugates for use with multispecific antibodies)

IT **Peptides, biological studies**
RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(radiolabeled **conjugates**; therapeutic and diagnostic
conjugates for use with multispecific antibodies)

IT **Carcinoembryonic antigen**
Epidermal growth factor receptors

Fibroblast growth factor receptors
Gangliosides
Platelet-derived growth factor receptors
Tenascins
Vascular endothelial growth factor receptors
neu (receptor)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(target; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Tumor antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(targets; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Autoimmune disease
Cardiovascular system, disease
Fluorescent indicators
Human
Immunomodulators
Infection
Inflammation
Metabolic disorders
Neoplasm
Nervous system, disease
Photodynamic therapy
Photosensitizers, pharmaceutical
Positron-emission tomography
Radiopharmaceuticals
Test kits
Tomography
(therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Interleukin 1
Interleukin 10
Interleukin 12
Interleukin 18
Interleukin 2
Interleukin 3
Interleukin 6
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Cytokines
Enzymes, biological studies
Hormones, animal, biological studies
Lipids, biological studies
Oligonucleotides
Polymers, biological studies
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Imaging agents
(x-ray, contrast; therapeutic and diagnostic **conjugates** for
use with multispecific antibodies)

IT Interferons
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(α ; therapeutic and diagnostic **conjugates** for use with
multispecific antibodies)

IT Interferons

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (β; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT Interferons
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (γ; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT 75037-46-6, Gelonin
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (radiolabeled **conjugates**; therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT 83869-56-1, GM-CSF 143011-72-7, G-CSF
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)

IT 50-02-2D, Dexamethasone, radiolabeled **conjugates** 50-18-0D, Cyclophosphamide, radiolabeled **conjugates** 50-35-1D, Thalidomide, radiolabeled **conjugates** 50-44-2D, 6-Mercaptopurine, radiolabeled **conjugates** 50-76-0D, Dactinomycin, radiolabeled **conjugates** 50-91-9D, Floxuridine, radiolabeled **conjugates** 51-21-8D, Fluorouracil, radiolabeled **conjugates** 51-75-2D, Mechlorethamine, radiolabeled **conjugates** 52-24-4D, Thiotepa, radiolabeled **conjugates** 52-67-5D, Penicillamine, radiolabeled **conjugates** 53-03-2D, Prednisone, radiolabeled **conjugates** 55-98-1D, Busulfan, radiolabeled **conjugates** 56-53-1D, Diethylstilbestrol, radiolabeled **conjugates** 57-22-7D, Vincristine, radiolabeled **conjugates** 57-63-6D, Ethinyl estradiol, radiolabeled **conjugates** 57-85-2D, Testosterone propionate, radiolabeled **conjugates** 58-05-9D, Leucovorin, radiolabeled **conjugates** 59-05-2D, Methotrexate, radiolabeled **conjugates** 66-75-1D, Uracil mustard, radiolabeled **conjugates** 70-47-3D, L-Asparagine, radiolabeled **conjugates** 71-58-9D, Medroprogesterone acetate, radiolabeled **conjugates** 76-43-7D, Fluoxymesterone, radiolabeled **conjugates** 96-83-3, Iopanoic acid 117-96-4, Diatrizoate 127-07-1D, Hydroxyurea, radiolabeled **conjugates** 147-94-4D, Cytarabine, radiolabeled **conjugates** 148-82-3D, Melphalan, radiolabeled **conjugates** 154-42-7D, Thioguanine, radiolabeled **conjugates** 154-93-8D, Carmustine, radiolabeled **conjugates** 305-03-3D, Chlorambucil, radiolabeled **conjugates** 320-67-2D, Azacytidine, radiolabeled **conjugates** 587-61-1, Propylidone 595-33-5D, Megestrol acetate, radiolabeled **conjugates** 606-17-7, Iodipamide 630-56-8D, Hydroxyprogesterone caproate, radiolabeled **conjugates** 671-16-9D, Procarbazine, radiolabeled **conjugates** 865-21-4D, Vinblastine, radiolabeled **conjugates** 1404-00-8D, Mitomycin, radiolabeled **conjugates** 1456-52-6, Ioprocemic acid 1605-68-1D, Taxane, radiolabeled **conjugate** derivs. 1949-45-7, Metrizoate 2169-64-4D, Azaribine, radiolabeled **conjugates** 2276-90-6, Iothalamic acid 2998-57-4D, Estramustine, radiolabeled **conjugates** 3778-73-2D, Ifosfamide, radiolabeled **conjugates** 4291-63-8D, Cladribine, radiolabeled **conjugates** 4342-03-4D, Dacarbazine, radiolabeled **conjugates** 4346-18-3D, Phenyl butyrate, radiolabeled **conjugates** 5587-89-3 5591-33-3, Iosefamic acid 6284-40-8, Meglumine 7207-70-7D, radiolabeled **conjugates** 7440-39-3, Barium, biological studies 7689-03-4D, Camptothecin, radiolabeled

conjugates 7791-12-0, Thallous chloride 8008-53-5, Ethiodized Oil 9001-99-4D, radiolabeled **conjugates** 9003-98-9D, Dnase, radiolabeled **conjugates** 9004-54-0, Dextran, biological studies 10043-49-9D, Gold 198, **peptide-conjugated** compds., biological studies 10043-66-0D, Iodine 131, **peptide-conjugated** compds., biological studies 10098-91-6D, Yttrium 90, **peptide-conjugated** compds., biological studies 10397-75-8, Iocarmic acid 10540-29-1D, Tamoxifen, radiolabeled **conjugates** 11056-06-7D, Bleomycin, radiolabeled **conjugates** 13010-47-4D, Lomustine, radiolabeled **conjugates** 13311-84-7D, Flutamide, radiolabeled **conjugates** 13909-09-6D, Semustine, radiolabeled **conjugates** 13967-65-2D, Holmium 166, **peptide-conjugated** compds., biological studies 13981-25-4D, Copper 64, **peptide-conjugated** compds., biological studies 13981-27-6D, Zirconium 89, **peptide-conjugated** compds., biological studies 13981-56-1D, Fluorine 18, **peptide-conjugated** compds., biological studies 14093-04-0D, Iron 52, **peptide-conjugated** compds., biological studies 14119-09-6D, Gallium 67, **peptide-conjugated** compds., biological studies 14119-15-4D, Molybdenum 99, **peptide-conjugated** compds., biological studies 14133-76-7D, Technetium 99, **peptide-conjugated** compds., biological studies 14158-27-1D, Strontium 89, **peptide-conjugated** compds., biological studies 14158-30-6D, Iodine 124, **peptide-conjugated** compds., biological studies 14158-31-7D, Iodine 125, **peptide-conjugated** compds., biological studies 14158-35-1D, Iridium 194, **peptide-conjugated** compds., biological studies 14191-64-1D, Praseodymium 142, **peptide-conjugated** compds., biological studies 14265-71-5D, Selenium 75, **peptide-conjugated** compds., biological studies 14265-75-9D, Lutetium 177, **peptide-conjugated** compds., biological studies 14265-85-1D, Actinium 225, **peptide-conjugated** compds., biological studies 14276-53-0D, Copper 62, **peptide-conjugated** compds., biological studies 14378-26-8D, Rhenium 188, **peptide-conjugated** compds., biological studies 14391-11-8D, Gold 199, **peptide-conjugated** compds., biological studies 14391-19-6D, Terbium 161, **peptide-conjugated** compds., biological studies 14391-25-4D, Lutetium 175, **peptide-conjugated** compds., biological studies 14391-96-9D, Scandium 47, **peptide-conjugated** compds., biological studies 14392-00-8D, Titanium 45, **peptide-conjugated** compds., biological studies 14596-12-4D, Iron 59, **peptide-conjugated** compds., biological studies 14596-37-3D, Phosphorus 32, **peptide-conjugated** compds., biological studies 14683-24-0D, Gadolinium 154, **peptide-conjugated** compds., biological studies 14687-61-7D, Arsenic 77, **peptide-conjugated** compds., biological studies 14809-53-1D, Yttrium 86, **peptide-conjugated** compds., biological studies 14809-55-3D, Technetium 94, **peptide-conjugated** compds., biological studies 14913-49-6D, Bismuth 212, **peptide-conjugated** compds., biological studies 14913-89-4D, **peptide-conjugated** compds., biological studies 14981-79-4D, Praseodymium 143, **peptide-conjugated** compds., biological studies 14998-63-1D, Rhenium 186, **peptide-conjugated** compds., biological studies 15068-71-0D, Gadolinium 158, **peptide-conjugated** compds., biological studies 15092-94-1D, Lead 212, **peptide-conjugated** compds., biological studies 15478-78-1, Iodamide 15623-45-7D, Radium 223, **peptide-**

conjugated compds., biological studies 15663-27-1D, Cisplatin,
 radiolabeled **conjugates** 15715-08-9D, Iodine 123,
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 15749-57-2D, **peptide-conjugated** compds., biological
 studies 15749-66-3D, Phosphorus 33, **peptide-conjugated**
 compds., biological studies 15750-15-9D, Indium 111, **peptide-**
conjugated compds., biological studies 15755-39-2D, Astatine
 211, **peptide-conjugated** compds., biological studies
 15757-14-9D, Gallium 68, **peptide-conjugated** compds.,
 biological studies 15757-86-5D, Copper 67, **peptide-**
conjugated compds., biological studies 15760-04-0D, Silver 111,
peptide-conjugated compds., biological studies
 15765-31-8D, Promethium 149, **peptide-conjugated**
 compds., biological studies 15765-78-3D, Rhenium 189, **peptide-**
conjugated compds., biological studies 15766-00-4D, Samarium
 153, **peptide-conjugated** compds., biological studies
 15776-20-2D, Bismuth 213, **peptide-conjugated** compds.,
 biological studies 15816-77-0D, Lead 211, **peptide-**
conjugated compds., biological studies 15840-01-4D, Dysprosium
 166, **peptide-conjugated** compds., biological studies
 15840-13-8D, Erbium 169, **peptide-conjugated** compds.,
 biological studies 16034-77-8, Iöcetamic acid **18378-89-7D**,
 Mithramycin, radiolabeled **conjugates** 18883-66-4D,
 Streptozocin, radiolabeled **conjugates** 19685-09-7D,
 10-Hydroxycamptothecin, radiolabeled **conjugates** 19863-06-0,
 Ioxotrizoic acid **20830-81-3D**, Daunorubicin, radiolabeled
conjugates 21679-14-1D, Fludarabine, radiolabeled
conjugates 23214-92-8D, Doxorubicin, radiolabeled
conjugates 29767-20-2D, Teniposide, radiolabeled
conjugates 30403-03-3, Gallium citrate 31112-62-6, Metrizamide
 31127-82-9, Iodoxamic acid 33069-62-4D, Paclitaxel, radiolabeled
conjugates 33419-42-0D, Etoposide, radiolabeled
conjugates 41575-94-4D, Carboplatin, radiolabeled
conjugates 51022-74-3, Iotroxic acid 51876-99-4, Ioseriac acid
 53910-25-1D, Pentostatin, radiolabeled **conjugates** 58957-92-9D,
 Idarubicin, radiolabeled **conjugates** 59017-64-0, Ioxaglic acid
 60019-19-4, Iotetric acid 60166-93-0, Iopamidol 63534-64-5, Iosulamide
 meglumine 65271-80-9D, Mitoxantrone, radiolabeled **conjugates**
 66108-95-0, Iohexol 71486-22-1D, Vinorelbine, radiolabeled
conjugates 71767-13-0, Iotasul 75751-89-2, Iogulamide
 83314-01-6D, Bryostatin-1, radiolabeled **conjugates**
 86639-52-3D, Sn-38, radiolabeled **conjugates** 88254-07-3D,
 radiolabeled **conjugates** 92137-84-3D, Epirubicin glucuronide,
 radiolabeled **conjugates** 95058-81-4D, Gemcitabine, radiolabeled
conjugates 97682-44-5D, Irinotecan, radiolabeled
conjugates 100007-55-4D, Etoposide glucuronide, radiolabeled
conjugates 113440-58-7D, Calicheamicin, radiolabeled
conjugates 114977-28-5D, Docetaxel, radiolabeled
conjugates 117091-64-2D, Etoposide phosphate, radiolabeled
conjugates 120511-73-1D, Anastrozole, radiolabeled
conjugates 123948-87-8D, Topotecan, radiolabeled
conjugates 137219-37-5D, Aplidin, radiolabeled
conjugates 169590-42-5D, Celebrex, radiolabeled
conjugates 175795-76-3D, radiolabeled **conjugates**
 179324-69-7D, Bortezomib, radiolabeled **conjugates**
 229314-81-2D, radiolabeled **conjugates** 600164-87-2D,
 Doxorubicin glucuronide, radiolabeled **conjugates** 819800-49-2D,
 radiolabeled **peptide conjugates** 820213-81-8D, PSI
 341, radiolabeled **conjugates**
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)

- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 248243-69-8DP, complexes with Indium 616208-30-1DP, complexes with Indium III 616208-30-1P 819800-48-1DP, complexes with Indium
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 819800-45-8DP, complexes with Indium
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 7429-90-5D, Aluminum, compds. 7429-91-6D, Dysprosium, compds. 7439-89-6D, Iron, compds. 7439-94-3D, Lutetium, compds. 7439-96-5D, Manganese, compds. 7440-00-8D, Neodymium, compds. 7440-02-0D, Nickel, compds. 7440-05-3D, Palladium, compds. 7440-15-5D, Rhenium, compds. 7440-27-9D, Terbium, compds. 7440-42-8D, Boron, compds. 7440-47-3D, Chromium, compds. 7440-48-4D, Cobalt, compds. 7440-50-8D, Copper, compds. 7440-53-1D, Europium, compds. 7440-54-2D, Gadolinium, compds. 7440-55-3D, Gallium, compds. 7440-60-0D, Holmium, compds. 7440-61-1D, Uranium, compds. 7440-66-6D, Zinc, compds. 14701-22-5D, Nickel ion (2+), compds., biological studies 14913-52-1D, Neodymium ion (3+), compds., biological studies 15121-26-3D, Vanadium ion (2+), compds., biological studies 15158-11-9D, Copper ion (2+), compds., biological studies 15438-31-0D, Iron ion (2+), compds., biological studies 16065-83-1D, Chromium ion (3+), compds., biological studies 16397-91-4D, Manganese ion (2+), compds., biological studies 18472-30-5D, Erbium ion (3+), compds., biological studies 18923-27-8D, Ytterbium ion (3+), compds., biological studies 20074-52-6D, Iron ion (3+), compds., biological studies 22541-17-9D, Samarium ion (3+), compds., biological studies 22541-19-1D, Gadolinium ion (3+), compds., biological studies 22541-20-4D, compds., biological studies 22541-21-5D, Dysprosium ion (3+), compds., biological studies 22541-22-6D, Holmium ion (3+), compds., biological studies 22541-53-3D, Cobalt ion (2+), compds., biological studies
 RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 111-40-0 541-88-8, Chloroacetic anhydride 563-96-2 598-21-0, Bromoacetyl bromide 1210-33-9 5292-43-3 7689-03-4, Camptothecin 25316-40-9, Doxorubicin hydrochloride 616208-31-2 819800-46-9 819800-47-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 7688-65-5P 15750-15-9DP, Indium 111, **peptide-conjugated** complexes, preparation 103213-32-7P 127793-08-2P 180152-83-4P 248243-69-8P 696647-74-2P 819800-43-6P 819800-44-7P 819800-45-8P 819800-48-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (therapeutic and diagnostic **conjugates** for use with multispecific antibodies)
- IT 9016-18-6DP, Carboxylesterase, DTPA-**peptide conjugate** 696647-74-2DP, carboxylesterase-DTPA **conjugate**
 RL: SPN (Synthetic preparation); PREP (Preparation)
- (therapeutic and diagnostic **conjugates** for use with

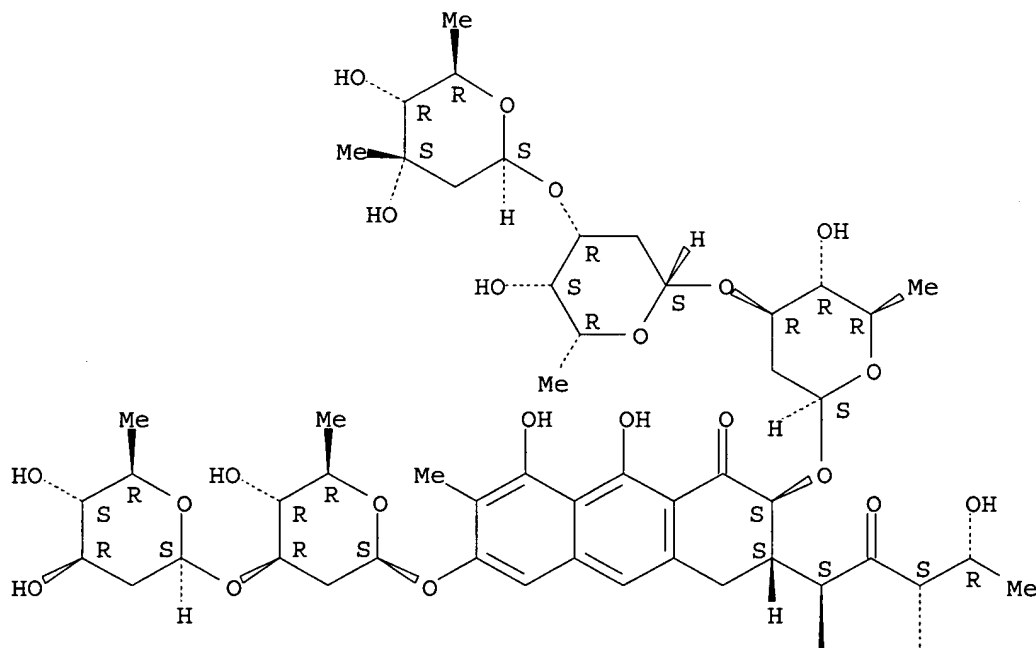
multispecific antibodies)
 IT 84370-49-0D, sulfonated 113471-15-1, Tin etiopurpurin 129497-78-5,
 Bpd-ma 246252-04-0, Lutex
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (therapeutic and diagnostic **conjugates** for use with
 multispecific antibodies)
 IT **9004-54-0, Dextran**, biological studies
18378-89-7D, Mithramycin, radiolabeled **conjugates**
20830-81-3D, Daunorubicin, radiolabeled **conjugates**
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (therapeutic and diagnostic **conjugates** for use with
 multispecific antibodies)
 RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 18378-89-7 HCAPLUS
 CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy- β -D-arabino-hexopyranosyl)- β -D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl- β -D-ribo-hexopyranosyl-(1 \rightarrow 3)-O-2,6-dideoxy- β -D-lyxo-hexopyranosyl-(1 \rightarrow 3)-2,6-dideoxy- β -D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

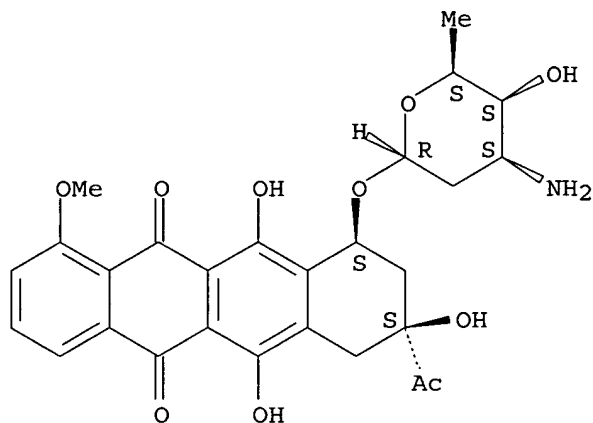


PAGE 2-A



RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

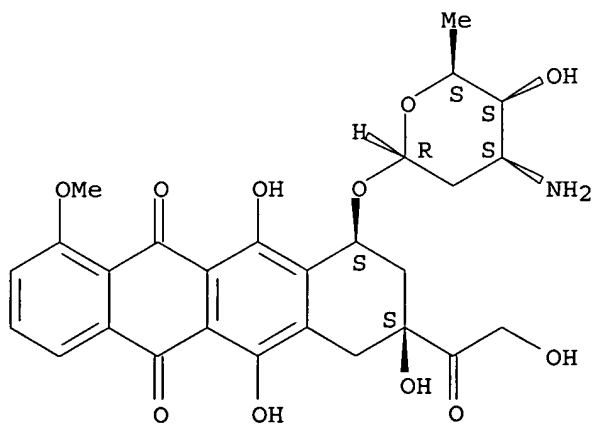
Absolute stereochemistry.



IT 25316-40-9, Doxorubicin hydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (therapeutic and diagnostic **conjugates** for use with
 multispecific antibodies)

RN 25316-40-9 HCAPLUS
 CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 8 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1080511 HCAPLUS

DOCUMENT NUMBER: 142:73411
 TITLE: **Protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and molecules derived therefrom, and uses in cancer diagnosis, therapy and prophylactics
 INVENTOR(S): Jakobovits, Aya; Eteessami, Soudabeh; Challita-Eid, Pia M.; Perez-Villar, Juan J.; Morrison, Karen J. Morrison; Jia, Xiao-Chi; Faris, Mary; Gudas, Jean; Raitano, Arthur B.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 250 pp., Cont.-in-part of U.S. Ser. No. 236,878.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 11
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004253232	A1	20041216	US 2004-830899	20040423
US 2006073150	A1	20060406	US 2002-236878	20020906
WO 2005113601	A2	20051201	WO 2004-US12625	20040422
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2005086707	A1	20050421	US 2004-861662	20040604
AU 2005202361	A1	20050616	AU 2005-202361	20050531
AU 2006200459	A1	20060302	AU 2006-200459	20060202 <--
PRIORITY APPLN. INFO.:			US 2001-317840P	P 20010906
			US 2002-370387P	P 20020405
			US 2002-236878	A2 20020906
			AU 1999-43262	A3 19990601 <--
			AU 2003-204605	A3 20030610
			US 2004-830899	A1 20040423
			AU 2004-224964	A3 20041029
ED	Entered STN:	17 Dec 2004		
AB	Antibodies and mols. derived therefrom that bind to STEAP-1 (six transmembrane epithelial antigen of the prostate 1) protein , and variants thereof, are described. STEAP-1 exhibits tissue specific expression in normal adult tissue, and is aberrantly expressed in lymphoma and cancers of prostate, bladder, kidney, colon, lung, pancreas, ovary, breast, stomach, and rectum. Protein and cDNA sequences of STEAP-1 isoforms are provided. The STEAP-1 antigen provides a diagnostic, prognostic, prophylactic and/or therapeutic target for cancer. The STEAP-1 gene maps to human chromosome 7q21. The STEAP-1 gene or fragment thereof, or its encoded protein , or variants thereof, or a fragment thereof, can be used to elicit a humoral or cellular immune response; antibodies or T cells reactive with STEAP-1 can be used in active or passive immunization.			
IC	ICM A61K039-395 ICS C07K016-18			

INCL 424141100; 530388150; 800006000
CC 15-3 (Immunochemistry)
Section cross-reference(s): 3, 13, 14
ST human STEAP1 **protein** cDNA sequence splice isoform; STEAP1
antibody cancer therapy diagnosis prophylactic; cancer vaccine STEAP1
antigen
IT Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A-chain, antibody **conjugates**; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.
derived therefrom, and uses in cancer diagnosis, therapy and
prophylactics)
IT **Proteins**
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(STEAP-1 (six transmembrane epithelial antigen of the prostate 1);
protein and cDNA sequences of STEAP-1 splice isoforms, STEAP-1
antibodies and mols. derived therefrom, and uses in cancer diagnosis,
therapy and prophylactics)
IT RNA splicing
(alternative, STEAP-1; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
IT Glucocorticoids
Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antibody **conjugates**; **protein** and cDNA sequences of
STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived
therefrom, and uses in cancer diagnosis, therapy and prophylactics)
IT Mus musculus
(antigen-binding site of; **protein** and cDNA sequences of
STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived
therefrom, and uses in cancer diagnosis, therapy and prophylactics)
IT Diagnosis
(cancer; **protein** and cDNA sequences of STEAP-1 splice
isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in
cancer diagnosis, therapy and prophylactics)
IT Intestine, neoplasm
(colon; **protein** and cDNA sequences of STEAP-1 splice
isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in
cancer diagnosis, therapy and prophylactics)
IT Chelating agents
Chemiluminescent substances
Drugs
Fluorescent substances
Luminescent substances
(**conjugates**; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
IT Enzymes, biological studies
Radionuclides, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
study); BIOL (Biological study); USES (Uses)
(**conjugates**; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and

- uses in cancer diagnosis, therapy and prophylactics)
- IT **Proteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(croitin, antibody **conjugates**; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.
derived therefrom, and uses in cancer diagnosis, therapy and
prophylactics)
- IT Cytotoxic agents
(delivery; **protein** and cDNA sequences of STEAP-1 splice
isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in
cancer diagnosis, therapy and prophylactics)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, antibody **conjugates**; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.
derived therefrom, and uses in cancer diagnosis, therapy and
prophylactics)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, Pseudomonas, PE-A, and PE-40, antibody **conjugates**
; **protein** and cDNA sequences of STEAP-1 splice isoforms,
STEAP-1 antibodies and mols. derived therefrom, and uses in cancer
diagnosis, therapy and prophylactics)
- IT Hybridoma
(for antibody production; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic
use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fragments, Fab, F(ab')₂, Fv or Sfv; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.
derived therefrom, and uses in cancer diagnosis, therapy and
prophylactics)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic
use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(humanized; **protein** and cDNA sequences of STEAP-1 splice
isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in
cancer diagnosis, therapy and prophylactics)
- IT **Drug delivery systems**
(immunoconjugates; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
- IT Cell proliferation
(inhibition, tumor; **protein** and cDNA sequences of STEAP-1
splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and
uses in cancer diagnosis, therapy and prophylactics)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic
use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, X120.545.1.1, /PTA-5802; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.
derived therefrom, and uses in cancer diagnosis, therapy and
prophylactics)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic
use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, X92.1.30.1.1(1), /PTA-5803; **protein** and cDNA
sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.

- derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Antitumor agents
Bladder, neoplasm
Drug screening
Drug targets
Gene therapy
Human
Immunization
Kidney, neoplasm
Lung, neoplasm
Lymphoma
Mammary gland, neoplasm
Molecular cloning
Ovary, neoplasm
Pancreas, neoplasm
Prostate gland, neoplasm
 Protein sequences
Stomach, neoplasm
Susceptibility (genetic)
Tumor markers
cDNA sequences
 (**protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (**protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Carcinoma
 (rectal; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Intestine, neoplasm
 (rectum, carcinoma; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Double stranded RNA
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (small interfering, anti-STEAP-1; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Animals
 (transgenic, for antibody production; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Vaccines
 (tumor; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT Antitumor agents
 (vaccines; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)
- IT 65988-88-7, Modeccin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (A-chain, antibody **conjugates**; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols.

derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 810702-39-7 810702-40-0 810702-41-1 810702-42-2
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (amino acid sequence; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 810702-21-7 810702-22-8 810702-23-9 810702-24-0 810702-25-1
 810702-26-2 810702-27-3 810702-28-4 810702-29-5 810702-30-8
 810702-31-9 810702-32-0 810702-33-1 810702-34-2 810702-35-3
 810702-36-4 810702-37-5 810702-38-6

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide sequence; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 10043-66-0, I 131, biological studies 10098-91-6, Y 90, biological studies 14158-31-7, I 125, biological studies 14378-26-8, Re 188, biological studies 14596-37-3, P 32, biological studies 14913-49-6, Bi212, biological studies 14993-62-5, Re 180, biological studies 15766-00-4, Sm 153, biological studies 15776-20-2, Bi 213, biological studies 31918-08-8, In 131, biological studies 51712-69-7, At 233, biological studies
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(**protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 57-22-7D, Vincristine, antibody **conjugates** 64-86-8D, Colchicine, antibody **conjugates** 865-21-4D, Vinblastine, antibody **conjugates** 1239-45-8D, Ethidium bromide, antibody **conjugates** 1402-38-6D, Actinomycin, antibody **conjugates** 1404-00-8D, Mitomycin, antibody **conjugates** 1407-48-3D, α -Sarcin, antibody **conjugates** 7440-65-5D, Yttrium, antibody **conjugates** 7440-69-9D, Bismuth, antibody **conjugates** 11029-13-3D, Enomycin, antibody **conjugates** 12624-22-5D, Phenomycin, antibody **conjugates** 15663-27-1D, Cisplatin, antibody **conjugates** 20830-81-3D, Daunorubicin, antibody **conjugates** 23214-92-8D, Doxorubicin, antibody **conjugates** 33069-62-4D, Taxol, antibody **conjugates** 33419-42-0D, Etoposide, antibody **conjugates** 69866-21-3D, Cc1065, antibody **conjugates** 75037-46-6D, Gelonin, antibody **conjugates** 113440-58-7D, Calicheamicin, antibody **conjugates** 321995-29-3D, Mitogellin, antibody **conjugates**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 810807-77-3 810807-78-4 810807-79-5 810807-80-8 810807-81-9
 810807-82-0 810807-83-1 810807-84-2 810807-85-3 810807-86-4
 810807-87-5 810807-88-6 810807-89-7 810807-99-9 810808-01-6
 810808-03-8 810808-04-9 810808-07-2 810808-08-3 811578-93-5

RL: PRP (Properties)

(unclaimed nucleotide sequence; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 810807-76-2 810807-90-0 810807-91-1 810807-92-2 810807-93-3
 810807-94-4 810807-95-5 810807-96-6 810807-97-7 810807-98-8

810808-00-5 810808-02-7 810808-05-0 810808-06-1

RL: PRP (Properties)

(unclaimed **protein** sequence; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 119260-99-0 136206-98-9 344791-17-9 503051-68-1 503051-69-2
 503051-70-5 503051-71-6 503051-72-7 503051-73-8 503052-57-1
 810683-09-1 810683-10-4 810683-11-5 810683-12-6 810683-13-7
 810683-14-8 810683-15-9 810683-16-0

RL: PRP (Properties)

(unclaimed sequence; **protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

IT 20830-81-3D, Daunorubicin, antibody **conjugates**

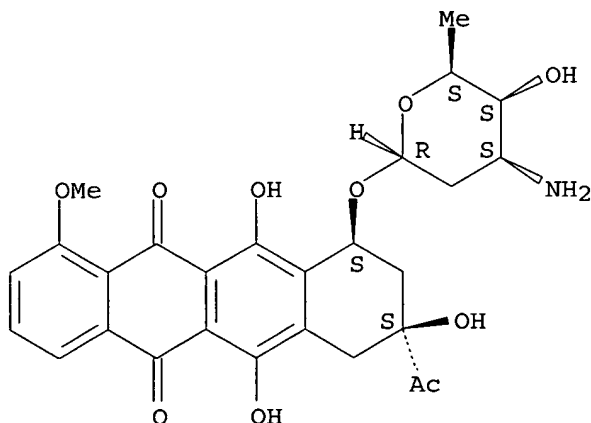
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**protein** and cDNA sequences of STEAP-1 splice isoforms, STEAP-1 antibodies and mols. derived therefrom, and uses in cancer diagnosis, therapy and prophylactics)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 9 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:934160 HCAPLUS

DOCUMENT NUMBER: 141:388650

TITLE: Anti-CD74 immunoconjugates and their therapeutic and diagnostic uses

INVENTOR(S): Griffiths, Gary L.; Hansen, Hans J.; Goldenberg, David M.; Lundberg, Bo B.

PATENT ASSIGNEE(S): Immunomedics, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 377,122.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004219203	A1	20041104	US 2003-706852	20031112 <--
US 6306393	B1	20011023	US 1999-307816	19990510 <--
US 2002071807	A1	20020613	US 2001-965796	20011001 <--
US 2003124058	A1	20030703	US 2002-314330	20021209 <--
US 2003133930	A1	20030717	US 2003-350096	20030124 <--
US 2004115193	A1	20040617	US 2003-377122	20030303
AU 2004247270	A1	20041223	AU 2004-247270	20040617
CA 2529496	AA	20041223	CA 2004-2529496	20040617
WO 2004110390	A2	20041223	WO 2004-US19238	20040617
WO 2004110390	A3	20050428		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1644729	A2	20060412	EP 2004-776666	20040617
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
US 2005191300	A1	20050901	US 2005-104594	20050413 <--
US 2006051349	A1	20060309	US 2005-222838	20050912 <--
PRIORITY APPLN. INFO.:			US 1999-307816	A1 19990510 <--
			US 2000-590284	A1 20000609 <--
			US 2001-965796	A1 20011001
			US 2002-360259P	P 20020301
			US 2002-314330	A2 20021209
			US 2003-350096	A2 20030124
			US 2003-377122	A2 20030303
			US 2003-478830P	P 20030617
			US 1997-41506P	P 19970324 <--
			US 1998-38995	A2 19980312 <--
			US 1999-138284P	P 19990609 <--
			US 2003-706852	A 20031112
			WO 2004-US19238	W 20040617
ED	Entered STN:	06 Nov 2004		
AB	Disclosed are compns. that include anti-CD74 immunoconjugates and a therapeutic and/or diagnostic agent. Also disclosed are methods for preparing the immunoconjugates and using the immunoconjugates in diagnostic and therapeutic procedures. The compns. may be part of a kit for administering the anti-CD74 immunoconjugates compns. in therapeutic and/or diagnostic methods. Anti-CD74 binding mols. are conjugated to the one or more lipids by one or more of a sulfide linkage, a hydrazone linkage, a hydrazine linkage, an ester linkage, an amido linkage, an amino linkage, an imino linkage, a thiosemicarbazone linkage, a semicarbazone linkage, an oxime linkage, a carbon-carbon linkage. Anti-CD74 immunoconjugates comprise a drug, a prodrug, a toxin, an enzyme, a radioisotope, an immunomodulator, a cytokine, a hormone, an antibody., an oligonucleotide, or a photodynamic agent.			
IC	ICM A61K039-395			
	ICS A61K009-127			
INCL	424450000; X42-414.41			
CC	1-6 (Pharmacology)			
	Section cross-reference(s): 8, 15			

- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG1, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG3, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG4, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MCP (membrane cofactor **protein**), **immunoconjugates**
binding to; anti-CD74 **immunoconjugates** and their therapeutic
and diagnostic uses)
- IT **Proteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PAP (pokeweed antiviral **protein**); anti-CD74
immunoconjugates and their therapeutic and diagnostic uses)
- IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amphiphilic, anti-CD74 binding mol. **conjugated** to; anti-CD74
immunoconjugates and their therapeutic and diagnostic uses)
- IT Linking agents
(anti-CD74 binding mol. **conjugated** to lipid by; anti-CD74
immunoconjugates and their therapeutic and diagnostic uses)
- IT **Oligonucleotides**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **Proteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(basculostatin; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Proteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(canstatin; anti-CD74 **immunoconjugates** and their therapeutic
and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chimeric, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(emulsions; anti-CD74 **immunoconjugates** and their therapeutic and
diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fragments, anti-CD74; anti-CD74 **immunoconjugates** and their
therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fusion products, anti-CD74; anti-CD74 **immunoconjugates** and
their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)

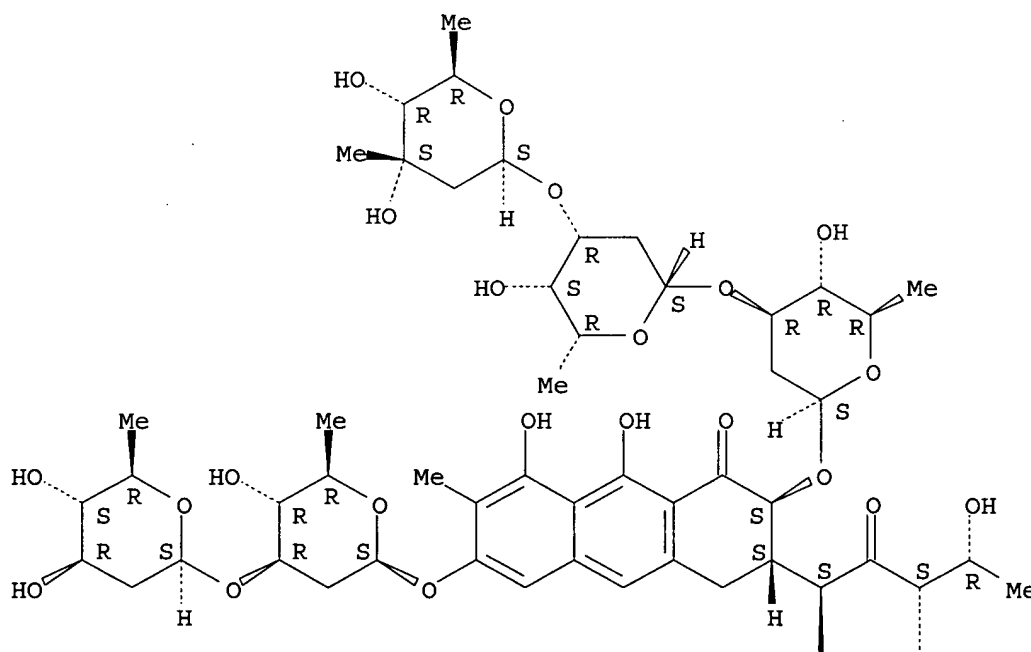
- (heavy chain, anti-CD74; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (humanized, anti-CD74; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(immunoconjugates; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(immunoliposomes; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(injections, i.m.; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(injections, i.v.; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(labeled; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (light chain, anti-CD74; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT Sulfhydryl group
(lipid **conjugated** to anti-CD74 binding mol. comprising; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(liposomes; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT Functional groups
(maleimide, lipid **conjugated** to anti-CD74 binding mol. comprising; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(micelles; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(microparticles, nanoparticles; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (monoclonal, anti-CD74; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(polymer-bound; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Drug delivery systems**
(prodrugs; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **Antibodies and Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (single chain, anti-CD74; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT 50-02-2, Dexamethasone 50-18-0, Cyclophosphamide 50-35-1, Thalidomide 50-44-2, 6-Mercaptopurine 50-76-0, Dactinomycin 50-91-9, Floxuridine (51-21-8, Fluorouracil 51-75-2, Mechlorethamine 52-24-4, Thiotepa

53-03-2, Prednisone 53-19-0, Mitotane 55-98-1, Busulfan 56-53-1,
 Diethylstilbestrol 57-22-7, Vincristine 57-63-6, Ethinyl estradiol
 57-85-2, Testosterone propionate 58-05-9, Leucovorin 59-05-2,
 Methotrexate 66-75-1, Uracil mustard 67-43-6, DTPA 71-58-9,
 Medroprogesterone acetate 76-43-7, Fluoxymesterone 127-07-1,
 Hydroxyurea 147-94-4, Cytarabine 148-82-3, Melphalan 154-42-7,
 Thioguanine 154-93-8, Carmustine 305-03-3, Chlorambucil 320-67-2,
 Azacytidine 595-33-5, Megestrol acetate 630-56-8, Hydroxyprogesterone
 caproate 671-16-9, Procarbazine 865-21-4, Vinblastine 1404-00-8,
 Mitomycin 2169-64-4, Azaribine 2998-57-4, Estramustine 3778-73-2,
 Ifosfamide 4291-63-8, Cladribine 4342-03-4, Dacarbazine 4346-18-3,
 Phenyl butyrate 7207-70-7 7439-92-1, Lead, biological studies
 7440-22-4, Silver, biological studies 7440-26-8, Technetium, biological
 studies 7440-38-2, Arsenic, biological studies 7440-57-5, **Gold**
 , biological studies 7440-68-8, Astatine, biological studies
 7440-69-9, Bismuth, biological studies 7689-03-4, Camptothecin
 9001-45-0, Glucuronidase 9001-99-4, Onconase 9003-98-9, DNase I
 9013-05-2, Phosphatase 9015-68-3, L-Asparaginase 9016-18-6,
 Carboxylesterase 9031-98-5, Carboxypeptidase 9073-60-3 10043-49-9,
 biological studies 10098-91-6, 90Yttrium, biological studies
 10540-29-1, Tamoxifen 11056-06-7, Bleomycin 13010-47-4, Lomustine
 13311-84-7, Flutamide 13909-09-6, Semustine 13967-65-2, biological
 studies 14119-15-4, 99Molybdenum, biological studies 14158-27-1,
 89Strontium, biological studies 14158-35-1, biological studies
 14191-64-1, biological studies 14265-71-5, 75Selenium, biological
 studies 14265-75-9, biological studies 14265-85-1, biological studies
 14333-34-7, biological studies 14378-26-8, biological studies
 14391-11-8, biological studies 14391-19-6, biological studies
 14391-25-4, biological studies 14391-32-3, biological studies
 14391-96-9, 47Scandium, biological studies 14392-00-8, 45Ti, biological
 studies 14392-07-5, biological studies 14596-12-4, 59Iron, biological
 studies 14596-37-3, 32Phosphorus, biological studies 14683-24-0,
 biological studies 14687-61-7, 77Arsenic, biological studies
 14913-49-6, biological studies 14913-89-4, biological studies
 14981-79-4, biological studies 14998-63-1, biological studies
 15068-71-0, biological studies 15092-94-1, biological studies
 15623-45-7, biological studies 15663-27-1, Cisplatin 15749-57-2,
 biological studies 15749-66-3, 33Phosphorus, biological studies
 15755-39-2, biological studies 15760-04-0, biological studies
 15765-31-8, biological studies 15765-78-3, biological studies
 15766-00-4, biological studies 15776-20-2, biological studies
 15816-77-0, biological studies 15840-01-4, biological studies
 15840-13-8, biological studies **18378-89-7, Mithramycin**
 18883-66-4, Streptozocin 19685-09-7, 10-Hydroxycamptothecin
20830-81-3, Daunorubicin 21679-14-1, Fludarabine 23214-92-8,
 Doxorubicin 29767-20-2, Teniposide 33069-62-4, Paclitaxel
 33419-42-0, Etoposide 41575-94-4, Carboplatin 53910-25-1, Pentostatin
 56491-86-2, NOTA 58957-92-9, Idarubicin 60239-18-1, DOTA 60239-22-7,
 TETA 65271-80-9, Mitoxantrone 71486-22-1, Vinorelbine 75037-46-6,
 Gelonin 83314-01-6, Bryostatin-1 83869-56-1, GM-CSF 84370-49-0D,
 Aluminum phthalocyanine, Sulfonated 86090-08-6, Angiostatin
 86639-52-3, SN 38 95058-81-4, Gemcitabine 97682-44-5, Irinotecan
 100007-55-4, Etoposide glucuronide 113440-58-7, Calicheamicin
 113471-15-1, Tin etiopurpurin 114977-28-5, Docetaxel 117091-64-2,
 Etoposide phosphate 120511-73-1, Anastrozole 123948-87-8, Topotecan
 129497-78-5, BPD-MA 143011-72-7, G-CSF 157857-21-1, Maspin
 169590-42-5, Celebrex 179324-69-7, Bortezomib 187888-07-9, Endostatin
 197082-25-0 246252-04-0, Lutetium texaphyrin 253197-61-4,
 Thiosemicarbazonylglyoxylcysteine 600164-87-2, Doxorubicin glucuronide
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT **9004-54-0, Dextran**, biological studies
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (as ultrasound contrast agents; anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- IT 25322-68-3, Polyethyleneglycol 58914-60-6
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (lipid **conjugated** to anti-CD74 binding mol. comprising; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT 787865-71-8 787865-73-0 787865-75-2 787865-77-4 787865-79-6
 787865-81-0
 RL: PRP (Properties)
 (unclaimed **nucleotide** sequence; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT 787865-72-9 787865-74-1 787865-76-3 787865-78-5 787865-80-9
 787865-82-1 787865-83-2 787865-84-3
 RL: PRP (Properties)
 (unclaimed **protein** sequence; anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)
- IT **18378-89-7, Mithramycin 20830-81-3, Daunorubicin**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (anti-CD74 **immunoconjugates** and their therapeutic and diagnostic uses)
- RN 18378-89-7 HCAPLUS
- CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-β-D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl-β-D-ribo-hexopyranosyl-(1→3)-O-2,6-dideoxy-β-D-lyxo-hexopyranosyl-(1→3)-2,6-dideoxy-β-D-arabino-hexopyranosyl)oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

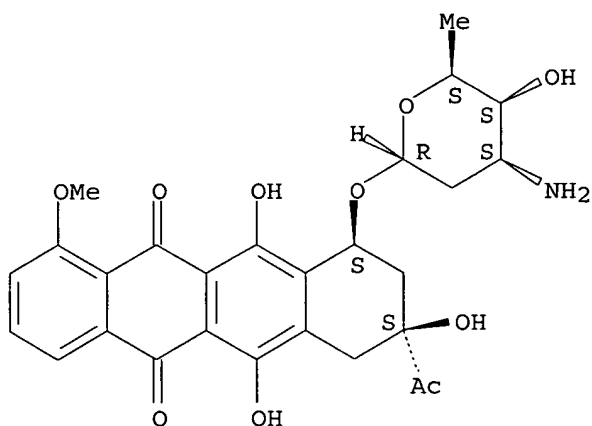


PAGE 2-A



RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 9004-54-0, **Dextran**, biological studies
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (as ultrasound contrast agents; anti-CD74 **immunoconjugates**
 and their therapeutic and diagnostic uses)
 RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L242 ANSWER 10 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:633169 HCAPLUS

DOCUMENT NUMBER: 141:168992

TITLE: **Protein** and cDNA sequences of human RG1
protein and radioisotope-**conjugated**
 anti-RG1 antibodies for treatment of prostate cancer
 INVENTOR(S): Harkins, Richard; Parkes, Deborah; Parry, Gordon;
 Parry, Renate; Schneider, Douglas W.
 PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany
 SOURCE: U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S.
 Pat. Appl. 2002 4,047.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2004152139      A1      20040805      US 2003-624884      20030722 <--
US 2002004047      A1      20020110      US 2000-732357      20001207 <--
US 6682902         B2      20040127
EP 1237915         A2      20020911      EP 2000-990937      20001215 <--
    R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
        IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2000017022      A      20021105      BR 2000-17022      20001215 <--
BG 106823          A      20030430      BG 2002-106823      20020613 <--
NO 2002002836      A      20020815      NO 2002-2836      20020614 <--
LT 5046            B      20030825      LT 2002-70      20020624 <--
ZA 2002005638      A      20031015      ZA 2002-5638      20020715 <--
US 2004023307      A1      20040205      US 2003-616279      20030708 <--
PRIORITY APPLN. INFO.:      US 1999-172370P      P 19991216 <--
                                US 2000-732357      A2 20001207 <--

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ED Entered STN: 06 Aug 2004

AB The present invention relates to **protein** and cDNA sequences of human extracellular matrix **polypeptides**, designated RG1. The invention further relates to sequences of antibodies directed against RG1 and to methods for using the antibodies conjugated with radioisotope in research, diagnosis, and therapy of prostate cancer. RG1 mRNA was detected at highest abundance in the prostate and at significantly lower levels in several other tissues.

IC ICM C12Q001-68

ICS G01N033-53; G01N033-567; C07K016-18

INCL 435007200; 530388150

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 1, 6, 14, 15

ST human **protein** RG1 cDNA sequence; prostate cancer immunotherapy
human antibody; anti human **protein** RG1 antibody sequence

IT **Proteins**

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); USES (Uses)

(RG1; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Chromophores

Fluorescent substances

(as detectable marker, **conjugated** with antibodies; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Enzymes, biological studies

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)

(as detectable marker, **conjugated** with antibodies; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Cytotoxic agents

(**conjugated** with antibodies; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Radionuclides, biological studies

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugated** with antibodies; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate

- cancer)
- IT Abrins
Glucocorticoids
Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cytotoxic agents **conjugated** with antibodies; **protein**
and cDNA sequences of human RG1 **protein** and radioisotope-
conjugated anti-RG1 antibodies for treatment of prostate
cancer)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, cytotoxic agents **conjugated** with antibodies;
protein and cDNA sequences of human RG1 **protein** and
radioisotope-**conjugated** anti-RG1 antibodies for treatment of
prostate cancer)
- IT Tomography
(emitting, for detection of RG1; **protein** and cDNA sequences
of human RG1 **protein** and radioisotope-**conjugated**
anti-RG1 antibodies for treatment of prostate cancer)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, (PE) A, Pseudomonas, cytotoxic agents **conjugated**
with antibodies; **protein** and cDNA sequences of human RG1
protein and radioisotope-**conjugated** anti-RG1
antibodies for treatment of prostate cancer)
- IT Prostate gland
(expression of RG1 in; **protein** and cDNA sequences of human
RG1 **protein** and radioisotope-**conjugated** anti-RG1
antibodies for treatment of prostate cancer)
- IT **Antibodies and Immunoglobulins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST
(Analytical study); BIOL (Biological study); USES (Uses)
(fragments, Fv, F(ab') and F(ab')₂; **protein** and cDNA
sequences of human RG1 **protein** and radioisotope-
conjugated anti-RG1 antibodies for treatment of prostate
cancer)
- IT Cell death
(from therapeutic agent of immunoconjugate; **protein** and cDNA
sequences of human RG1 **protein** and radioisotope-
conjugated anti-RG1 antibodies for treatment of prostate
cancer)
- IT **Antibodies and Immunoglobulins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST
(Analytical study); BIOL (Biological study); USES (Uses)
(heavy chain; **protein** and cDNA sequences of human RG1
protein and radioisotope-**conjugated** anti-RG1
antibodies for treatment of prostate cancer)
- IT **Drug delivery systems**
(immunoconjugates; **protein** and cDNA sequences of human RG1
protein and radioisotope-**conjugated** anti-RG1
antibodies for treatment of prostate cancer)
- IT Diagnosis
(immunodiagnosis; **protein** and cDNA sequences of human RG1
protein and radioisotope-**conjugated** anti-RG1
antibodies for treatment of prostate cancer)
- IT Scintigraphy
(immunoscintigraphy, for detection of RG1; **protein** and cDNA
sequences of human RG1 **protein** and radioisotope-

conjugated anti-RG1 antibodies for treatment of prostate cancer)

IT **Antibodies and Immunoglobulins**

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(light chain; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Prostate gland, neoplasm

(metastasis, treatment of; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT **Antibodies and Immunoglobulins**

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Epitopes

Molecular cloning

(of RG1; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Antitumor agents

Human

Immunoassay

Immunotherapy

Protein sequences

cDNA sequences

(**protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT **Antibodies and Immunoglobulins**

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT Prostate gland, neoplasm

(treatment of; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT 733167-08-3 733167-09-4 733167-10-7 733167-11-8 733167-12-9
733167-13-0

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT 733167-07-2P, **Protein** RG1 (human)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

- IT 13981-25-4D, Copper, isotope of mass 64, **conjugated** with antibody, biological studies 14093-04-0D, Iron, isotope of mass 52, **conjugated** with antibody, biological studies 14133-76-7D, Technetium, isotope of mass 99, **conjugated** with antibody, biological studies 14276-61-0D, Scandium, isotope of mass 43, **conjugated** with antibody, biological studies 14391-94-7D, Scandium, isotope of mass 44, **conjugated** with antibody, biological studies 14809-53-1D, Yttrium, isotope of mass 86, **conjugated** with antibody, biological studies 14809-55-3D, Technetium, isotope of mass 94, **conjugated** with antibody, biological studies 15750-15-9D, Indium, isotope of mass 111, **conjugated** with antibody, biological studies 15757-14-9D, Gallium, isotope of mass 68, **conjugated** with antibody, biological studies 351016-15-4D, Cobalt, isotope of mass 85, **conjugated** with antibody, biological studies
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (as detectable marker; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)
- IT 733167-14-1 733167-15-2 733167-16-3 733167-17-4 733167-18-5 733167-19-6
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (**nucleotide** sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)
- IT 733167-06-1, DNA (human **protein** RG1 cDNA plus flanks)
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); USES (Uses)
 (**nucleotide** sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)
- IT 121806-83-5D, p-SCN-Benzyl-DTPA, **conjugated** with antibody
 RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (p-SCN-Benzyl-DTPA; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)
- IT 56491-86-2D, **conjugated** with antibody 60239-18-1D, **conjugated** with antibody 121826-06-0D, MX-DTPA, **conjugated** with antibody 142434-84-2D, CHX-A-DTPA, **conjugated** with antibody
 RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)
- IT 50-76-0D, Actinomycin D, **conjugated** with antibodies 57-22-7D, Vincristine, **conjugated** with antibodies 64-86-8D, Colchicine, **conjugated** with antibodies 865-21-4D, Vinblastine, **conjugated** with antibodies 1239-45-8D, Ethidium bromide, **conjugated** with antibodies 1404-00-8D, Mitomycin, **conjugated** with antibodies 10098-91-6D, Yttrium, isotope of mass 90, **conjugated** with antibody, biological studies 13967-63-0D, **conjugated** with antibody, biological studies 13967-65-2D, Holmium, isotope of mass 166, **conjugated** with antibody, biological studies 13982-22-4D, Gallium, isotope of mass 72, **conjugated** with antibody, biological studies 14265-75-9D,

Lutetium, isotope of mass 177, **conjugated** with antibody, biological studies 14378-26-8D, Rhenium, isotope of mass 188, **conjugated** with antibody, biological studies 14391-86-7D, Scandium, isotope of mass 48, **conjugated** with antibody, biological studies 14391-96-9D, Scandium, isotope of mass 47, **conjugated** with antibody, biological studies 14733-03-0D, Bismuth, isotope of mass 214, **conjugated** with antibody, biological studies 14913-49-6D, Bismuth, isotope of mass 212, **conjugated** with antibody, biological studies 14981-64-7D, Palladium, isotope of mass 109, **conjugated** with antibody, biological studies 14998-63-1D, Rhenium, isotope of mass 186, **conjugated** with antibody, biological studies 15034-51-2D, Gallium, isotope of mass 73, **conjugated** with antibody, biological studies 15229-37-5D, Bismuth, isotope of mass 211, **conjugated** with antibody, biological studies 15755-39-2D, Astatine, isotope of mass 211, **conjugated** with antibody, biological studies 15757-86-5D, Copper, isotope of mass 67, **conjugated** with antibody, biological studies 15760-04-0D, Silver, isotope of mass 111, **conjugated** with antibody, biological studies 15765-31-8D, Promethium, isotope of mass 149, **conjugated** with antibody, biological studies 15766-00-4D, Samarium, isotope of mass 153, **conjugated** with antibody, biological studies 15776-20-2D, Bismuth, isotope of mass 213, **conjugated** with antibody, biological studies **20830-81-3D**, Daunorubicin, **conjugated** with antibodies 23214-92-8D, Doxorubicin, **conjugated** with antibodies 29767-20-2D, Teniposide, **conjugated** with antibodies 33069-62-4D, Taxol, **conjugated** with antibodies 33419-42-0D, Etoposide, **conjugated** with antibodies 65271-80-9D, **conjugated** with antibodies 316373-16-7D, PE40, **conjugated** with antibodies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (protein and cDNA sequences of human RG1 **protein**
 and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT 733170-24-6 733170-25-7 733170-26-8 733170-27-9 733170-28-0
 733170-30-4 733170-31-5 733170-32-6 733170-33-7 733170-34-8
 733170-35-9

RL: PRP (Properties)

(unclaimed **nucleotide** sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT 733170-29-1

RL: PRP (Properties)

(unclaimed **protein** sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT 344591-60-2 344591-61-3 344591-62-4 344591-64-6 733000-39-0

RL: PRP (Properties)

(unclaimed sequence; **protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

IT **20830-81-3D**, Daunorubicin, **conjugated** with antibodies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

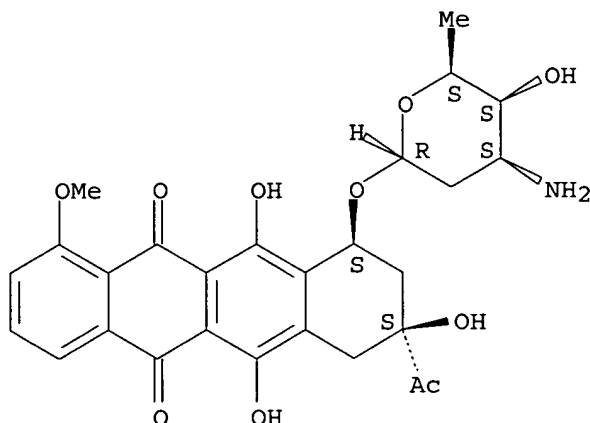
(**protein** and cDNA sequences of human RG1 **protein** and radioisotope-**conjugated** anti-RG1 antibodies for treatment of prostate cancer)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-

hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 11 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:162189 HCAPLUS
 DOCUMENT NUMBER: 140:223256
 TITLE: Leukocyte internalized **peptide-drug conjugates**
 INVENTOR(S): Siahaan, Teruna J.; Yusuf-Makagiansar, Helena;
 Anderson, Meagan; Xu, Christine Rong
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 50 pp., Cont.-in-part of U.S.
 Ser. No. 629,719.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004037775	A1	20040226	US 2003-464302	20030617 <--
AU 2004253475	A1	20050113	AU 2004-253475	20040617
CA 2529555	AA	20050113	CA 2004-2529555	20040617
WO 2005002516	A2	20050113	WO 2004-US19474	20040617
WO 2005002516	A3	20050804		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1653988	A2	20060510	EP 2004-776740	20040617
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				

PRIORITY APPLN. INFO.:

US 2000-629719

A2 20000801 <--

US 2003-464302

A 20030617

WO 2004-US19474

W 20040617

OTHER SOURCE(S): MARPAT 140:223256

ED Entered STN: 29 Feb 2004

AB The invention discloses compns. and methods useful for treating and preventing autoimmune diseases. The compns. and methods utilize **peptides** that are cell-specific. The **peptides** are conjugated to drugs. The **peptide-drug** conjugate can be internalized by the targeted cells thereby allowing for cell-specific delivery of the drug.

IC ICM A61K049-00

ICS A61K038-12; A61K038-10; C07K007-08

INCL 424009100; 514009000; 530317000; 530324000

CC 63-5 (Pharmaceuticals)

ST drug targeting **peptide** leukocyte

IT CD antigens

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CD54; leukocyte-internalized **peptide-drug conjugates**)

IT Cell adhesion molecules

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ICAM-1 (intercellular adhesion mol. 1); leukocyte-internalized **peptide-drug conjugates**)IT **Drug delivery systems**(carriers; leukocyte-internalized **peptide-drug conjugates**)IT **Peptides, biological studies**

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates; leukocyte-internalized **peptide-drug conjugates**)IT **Peptides, biological studies**

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cyclic, conjugates; leukocyte-internalized **peptide-drug conjugates**)

IT AIDS (disease)

Antirheumatic agents

Antitumor agents

Human

Human immunodeficiency virus

Leukocyte

Linking agents

Lupus erythematosus

Multiple sclerosis

Neoplasm

Rheumatoid arthritis

(leukocyte-internalized **peptide-drug conjugates**)

IT LFA-1 (antigen)

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(leukocyte-internalized **peptide-drug conjugates**)IT **Drug delivery systems**(tablets; leukocyte-internalized **peptide-drug conjugates**)IT **Drug delivery systems**(targeted; leukocyte-internalized **peptide-drug conjugates**)

IT 134580-64-6D, drug **conjugates** 172087-93-3D, drug **conjugates**
 172087-99-9D, drug **conjugates** 172088-01-6D, drug **conjugates**
 172088-02-7D, drug **conjugates** 172088-03-8D, drug **conjugates**
 183476-81-5D, drug **conjugates** 313688-82-3D, drug **conjugates**
 313688-88-9D, drug **conjugates** 313688-89-0D, drug **conjugates**
 663942-14-1D, drug **conjugates** 663942-15-2D, drug **conjugates**
 663942-16-3D, drug **conjugates** 663942-17-4D, drug **conjugates**
 663942-18-5D, drug **conjugates** 663942-19-6D, drug **conjugates**
 663942-20-9D, drug **conjugates** 663942-21-0D, drug **conjugates**
 663942-22-1D, drug **conjugates** 663942-23-2D, drug **conjugates**
 663942-24-3D, drug **conjugates** 663942-25-4D, drug **conjugates**
 663942-26-5D, drug **conjugates** 663942-27-6D, drug **conjugates**
 663942-28-7D, drug **conjugates** 663942-29-8D, drug **conjugates**
 663942-30-1D, drug **conjugates** 663942-31-2D, drug **conjugates**
 663942-32-3D, drug **conjugates** 663942-33-4D, drug **conjugates**
 663942-34-5D, drug **conjugates** 663942-35-6D, drug **conjugates**
 663942-36-7D, drug **conjugates** 663942-37-8D, drug **conjugates**
 663942-38-9D, drug **conjugates** 663942-39-0D, drug **conjugates**
 663942-40-3D, drug **conjugates** 663942-41-4D, drug **conjugates**
 663942-42-5D, drug **conjugates** 663942-43-6D, drug **conjugates**
 663942-44-7D, drug **conjugates** 663942-45-8D, drug **conjugates**
 663942-46-9D, drug **conjugates** 663966-24-3D, drug **conjugates**
 663966-25-4D, drug **conjugates** 663966-26-5D, drug **conjugates**
 663966-27-6D, drug **conjugates** 663966-28-7D, drug **conjugates**
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 663966-31-2D, drug **conjugates** 663966-32-3D, drug **conjugates**
 663966-33-4D, drug **conjugates** 663966-34-5D, drug **conjugates**
 663966-35-6D, drug **conjugates** 663966-36-7D, drug **conjugates**
 663966-37-8D, drug **conjugates** 663966-38-9D, drug **conjugates**
 663966-39-0D, drug **conjugates** 663966-40-3D, drug **conjugates**
 663966-41-4D, drug **conjugates** 663966-42-5D, drug **conjugates**
 663966-43-6D, drug **conjugates** 663966-44-7D, drug **conjugates**
 663966-45-8D, drug **conjugates** 663966-46-9D, drug **conjugates**
 663966-47-0D, drug **conjugates** 663966-48-1D, drug **conjugates**
 663966-49-2D, drug **conjugates** 663966-50-5D, drug **conjugates**
 663966-51-6D, drug **conjugates** 663966-52-7D, drug **conjugates**
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (leukocyte-internalized **peptide-drug conjugates**)
 IT 50-18-0D, Cyclophosphamide, **peptide conjugates**
 50-44-2D, 6-Mercaptopurine, **peptide conjugates**
 51-21-8D, Fluorouracil, **peptide conjugates** 57-22-7D,
 Vincristine, **peptide conjugates** 59-05-2D,
 Methotrexate, **peptide conjugates** 483-04-5D,
 Ajmalicine, **peptide conjugates** 865-21-4D,
 Vinblastine, **peptide conjugates** 1404-00-8D,
 Mitomycin, **peptide conjugates** 3778-73-2D,
 Ifosfamide, **peptide conjugates** 18378-89-7D,

Plicamycin, **peptide conjugates** 18559-94-9D,
 Albuterol, **peptide conjugates** 20830-81-3D,
 Daunorubicin, **peptide conjugates** 21679-14-1D,
 Fludarabine, **peptide conjugates** 23214-92-8D,
 Doxorubicin, **peptide conjugates** 33069-62-4D, Taxol,
peptide conjugates 33419-42-0D, Etoposide,
peptide conjugates 36015-30-2D, Propidium,
peptide conjugates 53910-25-1D, Pentostatin,
peptide conjugates 58957-92-9D, Idarubicin,
peptide conjugates 65271-80-9D, Mitoxantrone,
peptide conjugates 75330-75-5D, Lovastatin,
peptide conjugates 97682-44-5D, Irinotecan,
peptide conjugates 114977-28-5D, **peptide**
conjugates 123948-87-8D, Topotecan, **peptide**
conjugates

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (leukocyte-internalized **peptide-drug conjugates**)

IT 18378-89-7D, Plicamycin, **peptide conjugates**
 20830-81-3D, Daunorubicin, **peptide conjugates**

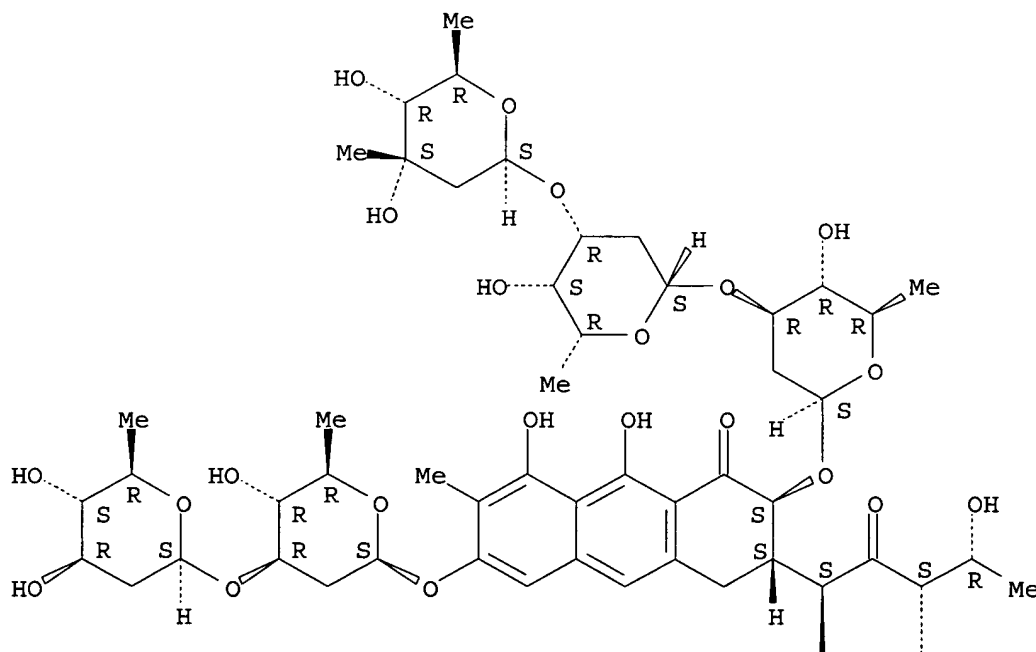
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (leukocyte-internalized **peptide-drug conjugates**)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-
 β -D-arabino-hexopyranosyl)- β -D-arabino-hexopyranosyl]oxy]-3-[(O-
 2,6-dideoxy-3-C-methyl- β -D-ribo-hexopyranosyl-(1 \rightarrow 3)-O-2,6-
 dideoxy- β -D-lyxo-hexopyranosyl-(1 \rightarrow 3)-2,6-dideoxy- β -D-
 arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-
 oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

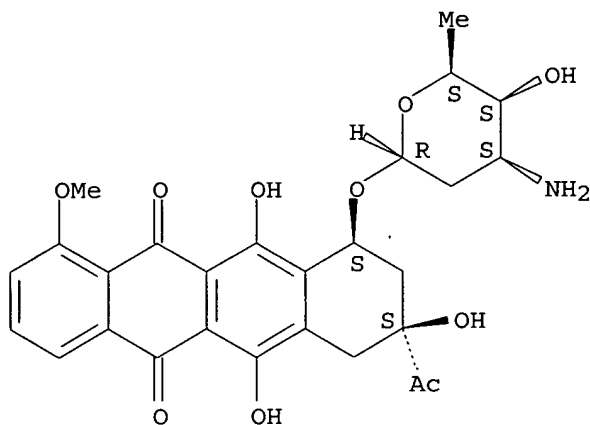


PAGE 2-A



RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 12 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:3463 HCAPLUS
 DOCUMENT NUMBER: 140:75946
 TITLE: Multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof
 INVENTOR(S): Levanon, Avigdor; Hagay, Yocheved; Plaksin, Daniel; Vogel, Tikva; Nimrod, Abraham; Mar-Haim, Hagit; Szanthon, Ester; Richter, Tamar; Amit, Boaz; Cooperman, Lena; Peretz, Tuvia; Lazarovits, Janette Israel
 PATENT ASSIGNEE(S): Israel
 SOURCE: U.S. Pat. Appl. Publ., 149 pp., Cont.-in-part of U.S. Provisional Ser. No. 258,948.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004001839	A1	20040101	US 2001-29988	20011231 <--
US 2004073011	A1	20040415	US 2001-29926	20011231 <--
PRIORITY APPLN. INFO.:			US 2000-258948P	P 20001229 <--
OTHER SOURCE(S):	MARPAT 140:75946			
ED	Entered STN: 04 Jan 2004			
AB	The present invention provides epitopes present on cancer cells and important in physiol. phenomena such as cell rolling, metastasis, and inflammation. Therapeutic and diagnostic methods and compns. using			

antibodies capable of binding to the epitopes are provided. Methods and compns. according to the present invention can be used in diagnosis of and therapy for such diseases as cancer, including tumor growth and metastasis, leukemia, autoimmune disease, and inflammatory disease. The preferred epitope comprises a **peptide** with a sulfated tyrosine or a **peptide** conjugate with a sulfated **carbohydrate** or a sulfated lipid mol. The invention provides sequences for **peptide** epitopes and for human antibody clones directed against a sulfated epitope. Epitopes of the invention are found on human glycoproteins GPIb in CD42 and P-Selectin Glycoprotein Ligand-1 (PSGL-1) and on certain diseased cells, such as B-CLL cells, AML cells, multiple myeloma cells, and B-CLL cells. Two human leukemia models were developed in immunodeficient mice. In the first model, SCID mice were injected with MOLT-4 cells from a human T cell leukemia and later with a conjugate between scFv CONY1 and doxorubicin. Tumor growths in the mouse livers weighed significantly less in mice treated with the CONY1-doxorubicin conjugate and the percentage of MOLT-4 cells found in bone marrow was low. In the second model, the conjugate between scFv CONY1 and doxorubicin significantly reduced the number of tumor cells in bone marrow of SCID/NOD mice that were injected with KG-1 cells from a human AML cell line. The pharmacokinetics of 125I-labeled CONY1 in BALB-C mice were determined

IC ICM A61K039-395
ICS C07K014-46
INCL 424178100; 530391100
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 3, 14, 63
ST human sulfated **peptide** epitope antibody diagnosis therapy
leukemia disease; **protein** sequence human sulfated epitope
antibody
IT B cell (lymphocyte)
(B-CLL cell, antibody binding; multimers of **peptide** epitopes
containing sulfated moieties, antibodies to such epitopes, and diagnostic
and therapeutic uses thereof)
IT Glycoproteins
RL: ANT (Analyte); ANST (Analytical study)
(GPIb, GPIb α ; multimers of **peptide** epitopes containing
sulfated moieties, antibodies to such epitopes, and diagnostic and
therapeutic uses thereof)
IT Glycoproteins
RL: ANT (Analyte); ANST (Analytical study)
(PSGL-1 (P-selectin glycoprotein ligand-1); multimers of
peptide epitopes containing sulfated moieties, antibodies to such
epitopes, and diagnostic and therapeutic uses thereof)
IT Mus
(T-ALL (MOLT4) and AML-KG1 models; multimers of **peptide**
epitopes containing sulfated moieties, antibodies to such epitopes, and
diagnostic and therapeutic uses thereof)
IT Leukemia
(acute myeloid, cells, antibody binding; multimers of **peptide**
epitopes containing sulfated moieties, antibodies to such epitopes, and
diagnostic and therapeutic uses thereof)
IT Platelet (blood)
(adhesion; multimers of **peptide** epitopes containing sulfated
moieties, antibodies to such epitopes, and diagnostic and therapeutic
uses thereof)
IT Anti-inflammatory agents
Antibacterial agents
Antiviral agents
Cardiovascular agents
Immunomodulators

- Thrombolytics
(antibody **conjugates**; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Radionuclides, biological studies
Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antibody **conjugates**; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Multiple myeloma
(cells, antibody binding; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Leukemia
(chronic lymphocytic, cells, antibody binding; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fragments, antigen binding site, Y1-CysKAK; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Glycoproteins
RL: ANT (Analyte); ANST (Analytical study)
(glycolalins; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT **Drug delivery systems**
(immunoconjugates; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT **Drug delivery systems**
(immunotoxins; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Cell proliferation
(inhibition; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Adhesion, biological
(inhibitor; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT **Drug delivery systems**
(liposomes; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Proteoglycans, analysis
RL: ANT (Analyte); ANST (Analytical study)
(lumicans; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Animal cell
(metastatic, antibody binding; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical

- study); BIOL (Biological study); USES (Uses)
(multimer antigen binding sites; multimers of **peptide**
epitopes containing sulfated moieties, antibodies to such epitopes, and
diagnostic and therapeutic uses thereof)
- IT Antitumor agents
Autoimmune disease
Cardiovascular system, disease
Disease models
Epitopes
Human
Inflammation
Leukemia
Molecular association
Platelet aggregation
Platelet aggregation
Protein sequences
Test kits
Tumor markers
cDNA sequences
(multimers of **peptide** epitopes containing sulfated moieties,
antibodies to such epitopes, and diagnostic and therapeutic uses
thereof)
- IT **Peptides, biological studies**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(pentapeptides, **linker**; multimers of **peptide**
epitopes containing sulfated moieties, antibodies to such epitopes, and
diagnostic and therapeutic uses thereof)
- IT Adhesion, biological
(platelet; multimers of **peptide** epitopes containing sulfated
moieties, antibodies to such epitopes, and diagnostic and therapeutic
uses thereof)
- IT **Drug delivery systems**
(polymer-bound; multimers of **peptide** epitopes containing sulfated
moieties, antibodies to such epitopes, and diagnostic and therapeutic
uses thereof)
- IT Artery, disease
(restenosis; multimers of **peptide** epitopes containing sulfated
moieties, antibodies to such epitopes, and diagnostic and therapeutic
uses thereof)
- IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); PAC (Pharmacological activity); PRP
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
(Biological study); USES (Uses)
(single chain, Y1 and Y17; multimers of **peptide** epitopes
containing sulfated moieties, antibodies to such epitopes, and diagnostic
and therapeutic uses thereof)
- IT Functional groups
(sulfate; multimers of **peptide** epitopes containing sulfated
moieties, antibodies to such epitopes, and diagnostic and therapeutic
uses thereof)
- IT Glycoproteins
RL: ANT (Analyte); ANST (Analytical study)
(sulfoglycoproteins; multimers of **peptide** epitopes containing
sulfated moieties, antibodies to such epitopes, and diagnostic and
therapeutic uses thereof)
- IT Interferons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(α , antibody **conjugates**; multimers of **peptide**
epitopes containing sulfated moieties, antibodies to such epitopes, and

- diagnostic and therapeutic uses thereof)
- IT Fibrinogens
RL: ANT (Analyte); ANST (Analytical study)
(γ chain, γ' ; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 641646-80-2D, **conjugates**
RL: ARG (Analytical reagent use); PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 641646-76-6 641646-78-8 641646-79-9
RL: ARG (Analytical reagent use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 9004-54-0, **Dextrans**, biological studies 21442-01-3
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug carrier; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 212783-31-8 268723-76-8 268723-77-9 442527-61-9
RL: ARG (Analytical reagent use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(human sulfated epitope antibody hypervariable region; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 60-18-4D, L-Tyrosine, sulfated 9001-26-7, Prothrombin 9005-49-6, Heparin, analysis 39346-44-6, Inter- α -trypsin inhibitor 80295-48-3, Complement C4 442528-30-5 442528-31-6 442528-33-8 442528-34-9 442528-35-0 639862-69-4 639862-76-3
RL: ANT (Analyte); ANST (Analytical study)
(multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)
- IT 10043-66-0D, Iodine-131, antibody **conjugates**, biological studies 10098-91-6D, Yttrium-90, antibody **conjugates**, biological studies 13968-53-1D, Ruthenium-103, antibody **conjugates**, biological studies 13981-56-1D, Fluorine-18, antibody **conjugates**, biological studies 13982-78-0D, Mercury-203, antibody **conjugates**, biological studies 14041-48-6D, Thulium-165, antibody **conjugates**, biological studies 14119-09-6D, Gallium-67, antibody **conjugates**, biological studies 14158-32-8D, Iodine-126, antibody **conjugates**, biological studies 14331-95-4D, Ruthenium-105, antibody **conjugates**, biological studies 14378-26-8D, Rhenium, isotope of mass 188, antibody **conjugates**, biological studies 14390-71-7D, Tellurium-122, antibody **conjugates**, biological studies 14391-22-1D, Thulium-167, antibody **conjugates**, biological studies 14834-67-4D, Iodine-133, antibody **conjugates**, biological studies 14885-78-0D, Indium-113, antibody **conjugates**, biological studies 14900-13-1D, Thulium-168, antibody **conjugates**, biological studies 14932-42-4D, Xenon-133, antibody **conjugates**, biological studies 14998-63-1D, Rhenium, isotope of mass 186, antibody **conjugates**, biological studies 15715-08-9D, Iodine-123, antibody **conjugates**, biological studies 15750-15-9D, Indium-111, antibody **conjugates**, biological studies 15756-62-4D, Ruthenium-95, antibody

conjugates, biological studies 15757-14-9D, Gallium-68, antibody
conjugates, biological studies 15758-35-7D, Ruthenium-97,
 antibody **conjugates**, biological studies 15765-39-6D,
 Bromine-77, antibody **conjugates**, biological studies
 15776-20-2D, Bismuth-213, antibody **conjugates**, biological
 studies 33455-08-2D, Mercury-207, antibody **conjugates**,
 biological studies 378253-17-9D, Krypton-81m, antibody
conjugates, biological studies 378784-45-3D, Technetium-99m,
 antibody **conjugates**, biological studies 378784-46-4D,
 Tellurium-121m, antibody **conjugates**, biological studies
 378784-50-0D, Tellurium-125m, antibody **conjugates**, biological
 studies

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(multimers of **peptide** epitopes containing sulfated moieties,
 antibodies to such epitopes, and diagnostic and therapeutic uses
 thereof)

IT 58-85-5D, Biotin, **conjugated** with antigen binding fragments
 9013-20-1D, Streptavidin, **conjugated** with antigen binding
 fragments

RL: ARU (Analytical role, unclassified); BUU (Biological use,
 unclassified); ANST (Analytical study); BIOL (Biological study); USES
 (Uses)

(multimers of **peptide** epitopes containing sulfated moieties,
 antibodies to such epitopes, and diagnostic and therapeutic uses
 thereof)

IT 2543-43-3

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(multimers of **peptide** epitopes containing sulfated moieties,
 antibodies to such epitopes, and diagnostic and therapeutic uses
 thereof)

IT 50-18-0D, Cyclophosphamide, antibody **conjugates** 50-35-1D,
 Thalidomide, antibody **conjugates** 50-78-2D, Aspirin, antibody
conjugates 53-03-2D, Prednisone, antibody **conjugates**
 53-86-1D, Indomethacin, antibody **conjugates** 57-22-7D,
 Vincristine, antibody **conjugates** 127-07-1D, Hydroxyurea,
 antibody **conjugates** 147-94-4D, Cytarabine, antibody
conjugates 305-03-3D, Chlorambucil, antibody **conjugates**
9004-61-9D, Hyaluronic acid, antibody **conjugates**
9041-08-1D, Dalteparin sodium, antibody **conjugates**
 11056-06-7D, Bleomycin, antibody **conjugates** 15307-86-5D,
 Diclofenac, antibody **conjugates** 15663-27-1D, cis-Platinum,
 antibody **conjugates** 15687-27-1D, Ibuprofen, antibody
conjugates **20830-81-3D**, Daunorubicin, antibody
conjugates 21679-14-1D, Fludarabine, antibody **conjugates**
 22204-53-1D, Naproxen, antibody **conjugates** 23214-92-8D,
 Doxorubicin, antibody **conjugates** **25316-40-9D**,
 Adriamycin, antibody **conjugates** 30516-87-1D, Zidovudine,
 antibody **conjugates** 33069-62-4D, Taxol, antibody
conjugates 38194-50-2D, Sulindac, antibody **conjugates**
 51146-56-6D, Dexibuprofen, antibody **conjugates** 51803-78-2D,
 Nimesulide, antibody **conjugates** 52549-17-4D, Pranoprofen,
 antibody **conjugates** 58957-92-9D, Idarubicin, antibody
conjugates 59277-89-3D, Acyclovir, antibody **conjugates**
 73963-72-1D, Cilostazol, antibody **conjugates** 74397-12-9D,
 Limaprost, antibody **conjugates** 74711-43-6D, Zaltoprofen,
 antibody **conjugates** 75706-12-6D, Leflunomide, antibody
conjugates 80790-68-7D, Morpholinodoxorubicin, antibody
conjugates 82410-32-0D, Ganciclovir, antibody **conjugates**

83712-60-1D, Defibrotide, antibody **conjugates** 85622-93-1D,
 Temozolomide, antibody **conjugates** 87344-06-7D, antibody
conjugates 90101-16-9D, Droxicam, antibody **conjugates**
 113440-58-7D, Calicheamicin, antibody **conjugates** 162011-90-7D,
 Rofecoxib, antibody **conjugates** 169590-42-5D, Celecoxib,
 antibody **conjugates** 173146-27-5D, Denileukin diftitox,
 antibody **conjugates** 262423-20-1D, Subreum, antibody
conjugates 425603-01-6D, WinRho SDF, antibody **conjugates**
 640734-07-2D, Clorcromene, antibody **conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (multimers of **peptide** epitopes containing sulfated moieties,
 antibodies to such epitopes, and diagnostic and therapeutic uses
 thereof)

IT 641646-77-7 641646-81-3

RL: ARG (Analytical reagent use); PRP (Properties); THU (Therapeutic use);
 ANST (Analytical study); BIOL (Biological study); USES (Uses)

(**nucleotide** sequence; multimers of **peptide** epitopes
 containing sulfated moieties, antibodies to such epitopes, and diagnostic
 and therapeutic uses thereof)

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	641651-03-8	641651-04-9	641651-05-0	641651-06-1	641651-07-2
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	641651-18-5	641651-19-6	641651-20-9	641651-21-0	641651-22-1
	641651-23-2	641651-24-3	641651-25-4	641651-26-5	641651-27-6
	641651-28-7	641651-29-8	641651-30-1	641651-31-2	641651-32-3
	641651-33-4	641651-34-5	641651-35-6	641651-36-7	641651-37-8
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	641651-73-2	641653-14-7			

RL: PRP (Properties)

(unclaimed **protein** sequence; multimers of **peptide**
 epitopes containing sulfated moieties, antibodies to such epitopes, and
 diagnostic and therapeutic uses thereof)

IT	122024-47-9	149298-29-3	245330-86-3	245330-96-5	245331-07-1
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	245331-51-5	245331-68-4	245331-74-2	245332-10-9	245333-35-1
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	245333-74-8	245333-75-9	245333-76-0	245333-82-8	245333-90-8
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442527-70-0 442527-71-1 442527-72-2 442527-73-3 442527-74-4
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 641653-28-3 641653-29-4 641653-30-7 641653-31-8 641653-32-9
 641653-33-0 641653-34-1

RL: PRP (Properties)

(unclaimed sequence; multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)

IT **9004-61-9D**, Hyaluronic acid, antibody **conjugates**
 9041-08-1D, Dalteparin sodium, antibody **conjugates**
 20830-81-3D, Daunorubicin, antibody **conjugates**
 25316-40-9D, Adriamycin, antibody **conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (multimers of **peptide** epitopes containing sulfated moieties, antibodies to such epitopes, and diagnostic and therapeutic uses thereof)

RN 9004-61-9 HCAPLUS

CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9041-08-1 HCAPLUS

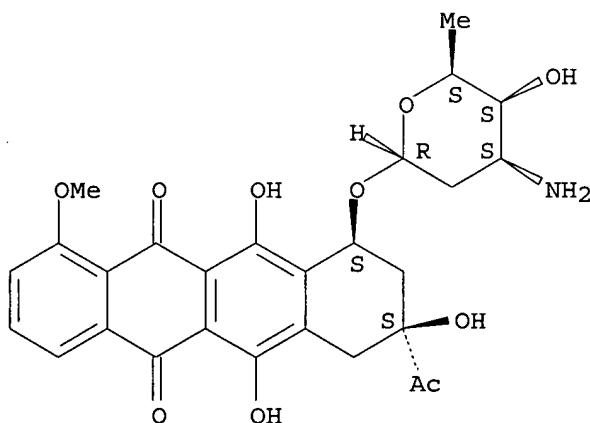
CN Heparin, sodium salt (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

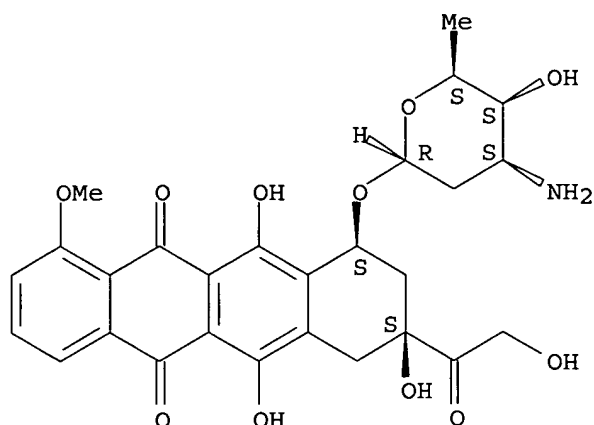
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 13 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:402286 HCAPLUS

DOCUMENT NUMBER: 140:420365

TITLE: Conjugating macromolecules using cycloaddition reactions

INVENTOR(S): Pieken, Wolfgang; Hill, Ken; Eaton, Bruce; McGee, Danny; Vagle, Kurt; Gold, Larry; Stephens, Andrew

PATENT ASSIGNEE(S): Proligo, LLC, USA

SOURCE: U.S., 39 pp., Cont.-in-part of U.S. 6,262,251.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6737236	B1	20040518	US 1999-341337	19990708 <--
US 5874532	A	19990223	US 1997-780517	19970108 <--
WO 9830575	A1	19980716	WO 1998-US649	19980108 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6262251	B1	20010717	US 1998-51449	19980406 <--
US 2003215801	A1	20031120	US 2001-845742	20010501 <--
PRIORITY APPLN. INFO.:				
			US 1997-34651P	P 19970108 <--
			US 1997-780517	A2 19970108 <--
			US 1997-58206P	P 19970908 <--
			WO 1998-US649	W 19980108 <--
			US 1998-51449	A2 19980406 <--
			US 1995-5619P	P 19951019 <--
			WO 1996-US16668	W 19961017 <--

US 1999-341337 A2 19990708 <--
US 2000-201561P P 20000501 <--
US 2001-265020P P 20010130

OTHER SOURCE(S): MARPAT 140:420365

ED Entered STN: 18 May 2004

AB A novel method of conjugating macromols. to other mol. entities using **cycloaddn.** reactions, such as the **Diels-Alder** reaction or 1,3-dipolar **cycloaddns.** is described. Specifically, this invention discloses a method for **conjugating** or derivatizing macromols., such as **oligonucleotides** and **proteins**. Included in the invention are the novel **bioconjugated** macromols. that can be prepared according to the method of the invention. Use of **cycloaddn.** reactions to conjugate a broad range of mols. to derivatized **oligonucleotides** is demonstrated. Reactions include the addition of reporter and affinity labels, crosslinking, and the addition of lipophilic moieties for incorporation into liposomes.

IC ICM C12Q001-68

ICS C07H021-02; C07H019-00

INCL 435006000; 435174000; 568767000; 424193100; 534766000; 536022100; 530350000

CC 9-15 (Biochemical Methods)

ST **cycloaddn** reaction macromol derivatization

IT Polyoxyalkylenes, preparation

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(**conjugates** with **dienophiles**, preparation and **cycloaddn.** reactions of; **conjugating** macromols. using **cycloaddn.** reactions)

IT Drugs

(**conjugates**; **conjugating** macromols. using **cycloaddn.** reactions)

IT Glycoproteins

Hormones, animal, preparation

Lipids, preparation

Nucleotides, preparation

Oligonucleotides

Polysaccharides, preparation

Proteins

RL: PNU (Preparation, unclassified); PREP (Preparation)

(**conjugates**; **conjugating** macromols. using **cycloaddn.** reactions)

IT **Cycloaddition** reaction

Diels-Alder reaction

(**conjugating** macromols. using **cycloaddn.** reactions)

IT Glycoconjugates

RL: PNU (Preparation, unclassified); PREP (Preparation)

(**conjugating** macromols. using **cycloaddn.** reactions)

IT Amino acids, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(diene modified, preparation and reactions of; **conjugating** macromols. using **cycloaddn.** reactions)

IT **Drug delivery systems**

(prodrugs, **conjugates**; **conjugating** macromols. using **cycloaddn.** reactions)

IT 690633-57-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

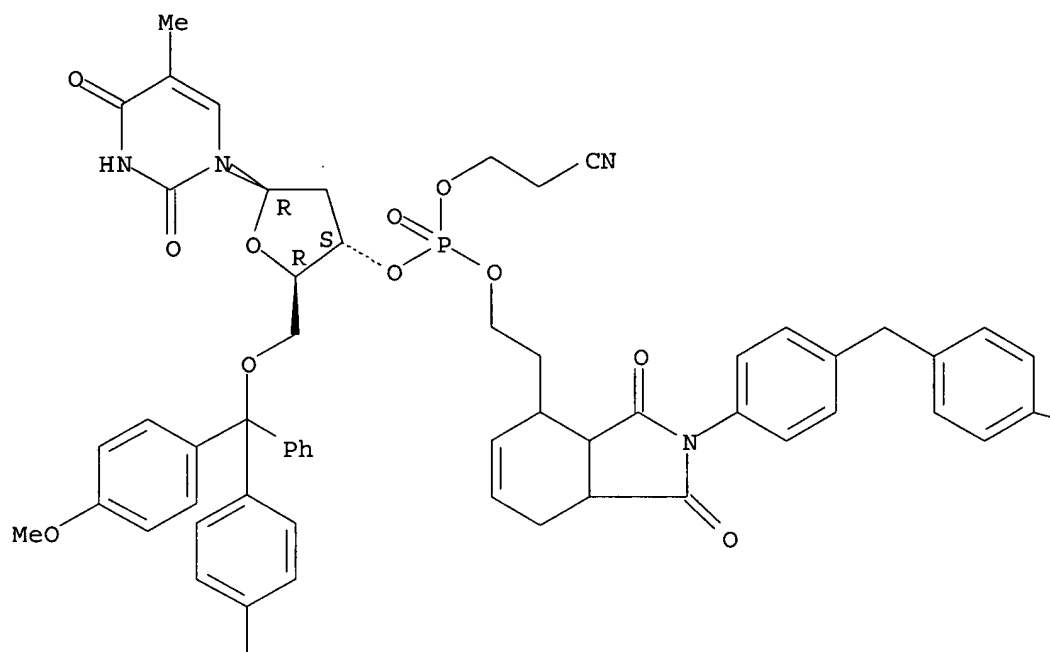
(**cycloaddn.** reactions in preparation of; **conjugating** macromols. using **cycloaddn.** reactions)

IT 128-53-0, N-Ethylmaleimide

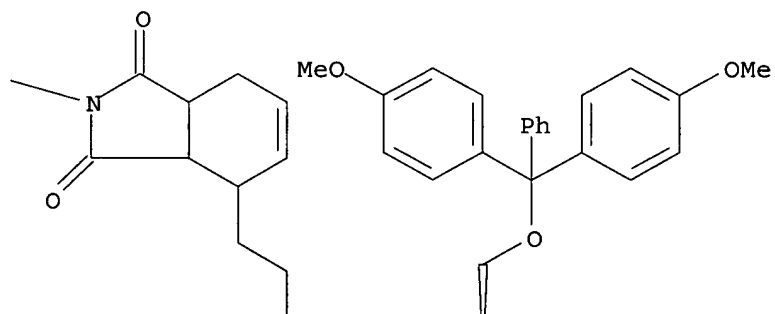
- RL: RCT (Reactant); RACT (Reactant or reagent)
(**cycloaddn.** reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 25322-68-3DP, Polyethylene glycol, **conjugates** with **dienophiles** 210351-53-4P 210351-55-6P 690242-91-2P 690242-92-3P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and **cycloaddn.** reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 690633-61-5P 690633-63-7P 690633-65-9P 690633-68-2P
- RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **cycloaddn.** reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 3326-34-9
- RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 139112-38-2P 173170-12-2P 210351-59-0P 210351-60-3P 210351-61-4P 210351-62-5P 210351-63-6P 210351-68-1P 690242-94-5P 690242-99-0P 691504-46-8P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 210406-17-0P 210406-18-1P 690242-96-7P 690243-00-6P 690633-59-1P 691504-45-7P 691910-72-2P 691910-73-3P 691910-74-4P
- RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 108-31-6, Maleic anhydride, reactions 111-28-4, 2,4-Hexadien-1-ol 921-26-6 3736-77-4, 2,2'-Anhydrouridine 4097-89-6 4856-87-5 5747-07-9, 3,5-Hexadien-1-ol 13676-54-5 21090-30-2 30516-87-1, AZT 40615-39-2 55145-14-7 76054-81-4 89992-70-1 105039-63-2 188682-72-6 210351-54-5 210351-64-7 690242-95-6 690242-97-8 690242-98-9 691504-44-6
- RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of; **conjugating** macromols. using **cycloaddn.** reactions)
- IT 690633-57-9P
- RL: SPN (Synthetic preparation); PREP (Preparation)
(**cycloaddn.** reactions in preparation of; **conjugating** macromols. using **cycloaddn.** reactions)
- RN 690633-57-9 HCAPLUS
- CN 3'-Thymidylic acid, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-, [methylenebis[4,1-phenylene(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-2H-isoindole-2,4-diyl)-2,1-ethanediyl]] bis(2-cyanoethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



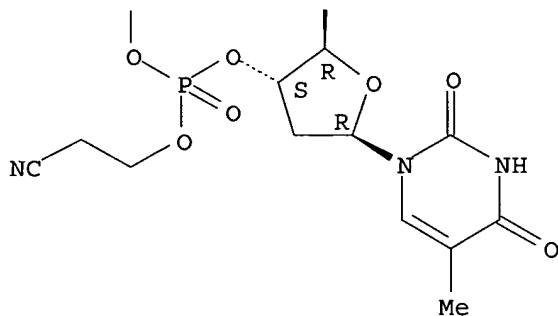
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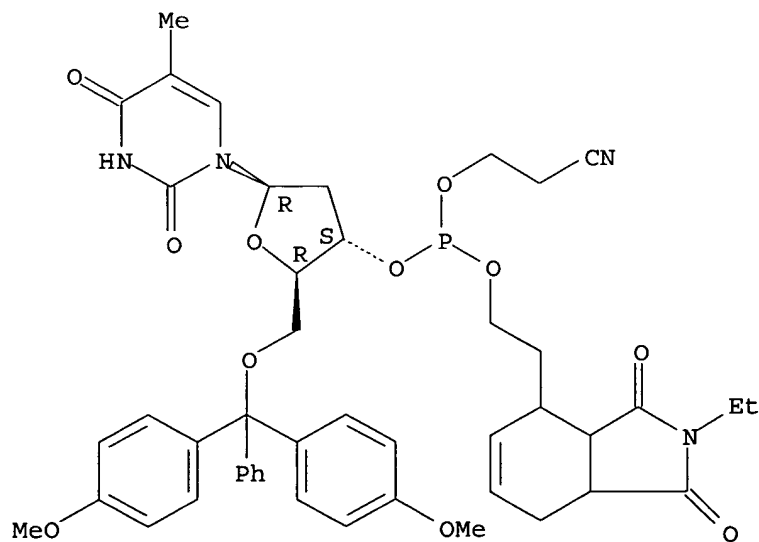
IT 690633-61-5P 690633-63-7P 690633-65-9P
690633-68-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **cycloaddn.** reactions of; **conjugating**
macromols. using **cycloaddn.** reactions)

RN 690633-61-5 HCAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-, 3'-[2-cyanoethyl
2-(2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl)ethyl
phosphite] (9CI) (CA INDEX NAME)

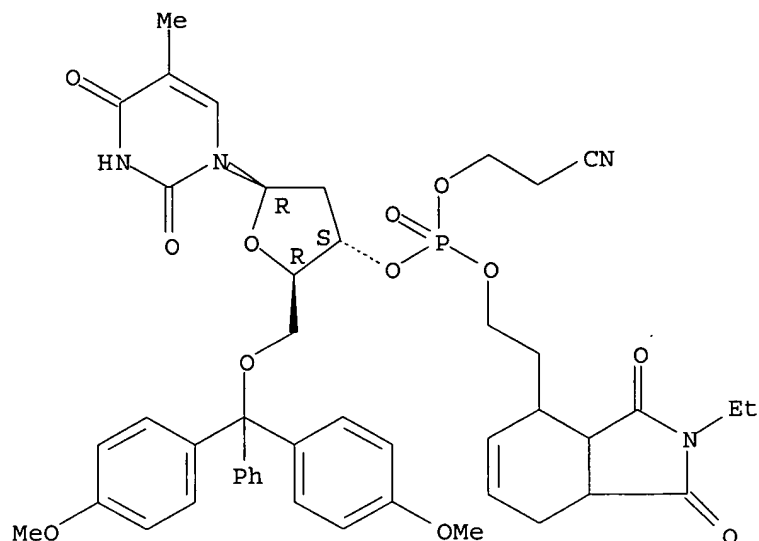
Absolute stereochemistry.



RN 690633-63-7 HCAPLUS

CN 3'-Thymidylic acid, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-, 2-cyanoethyl
2-(2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl)ethyl ester
(9CI) (CA INDEX NAME)

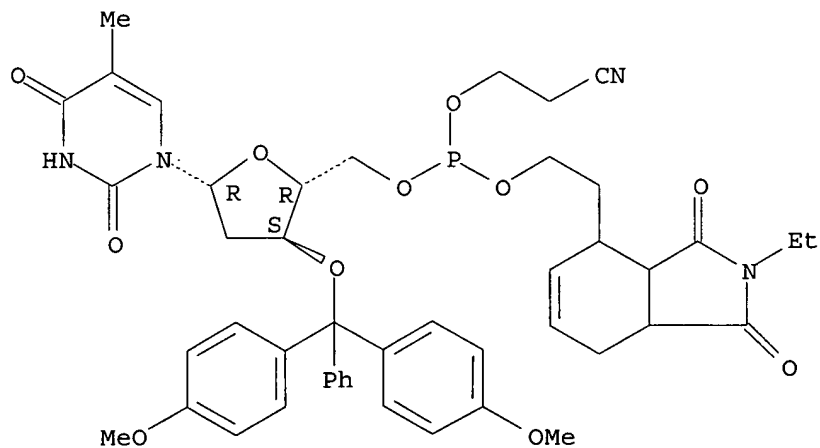
Absolute stereochemistry.



RN 690633-65-9 HCAPLUS

CN Thymidine, 3'-O- [bis (4-methoxyphenyl)phenylmethyl]-, 5'-[2-cyanoethyl
2- (2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl)ethyl
phosphite] (9CI) (CA INDEX NAME)

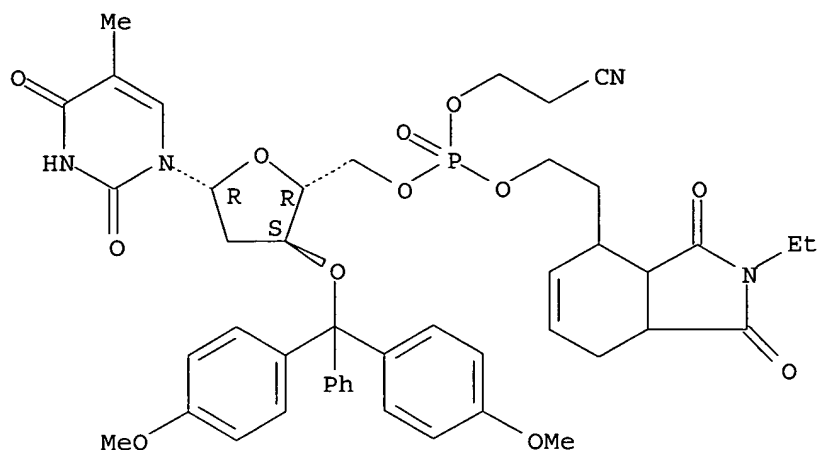
Absolute stereochemistry.



RN 690633-68-2 HCAPLUS

CN 5'-Thymidylic acid, 3'-O- [bis (4-methoxyphenyl)phenylmethyl]-, 2-cyanoethyl
2- (2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl)ethyl ester
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



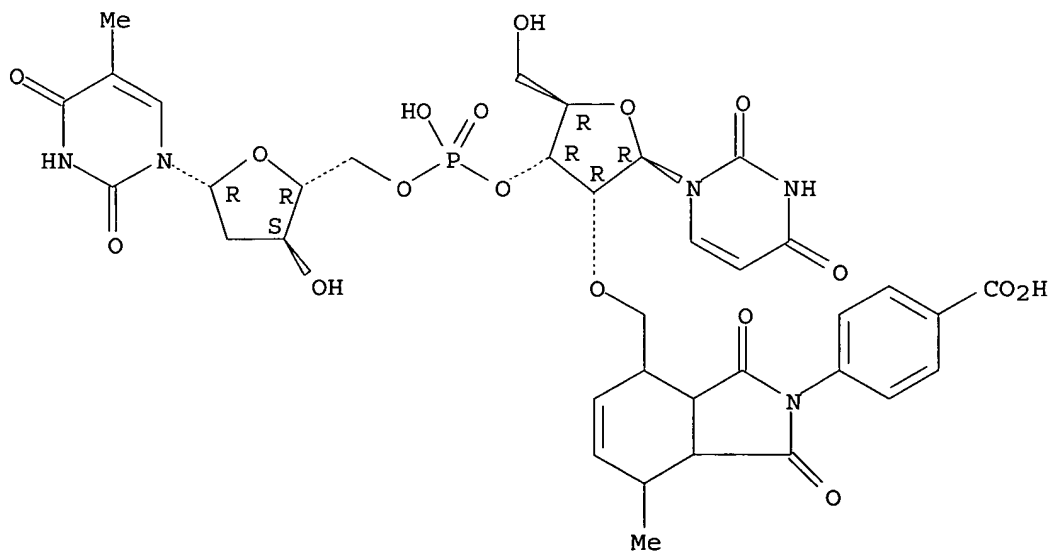
IT 210406-17-0P 210406-18-1P 690242-96-7P
690633-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of; **conjugating** macromols. using **cycloadn.**
reactions)

RN 210406-17-0 HCAPLUS

CN Thymidine, 2'-O-[[2-(4-carboxyphenyl)-2,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-1H-isoindol-4-yl]methyl]uridylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

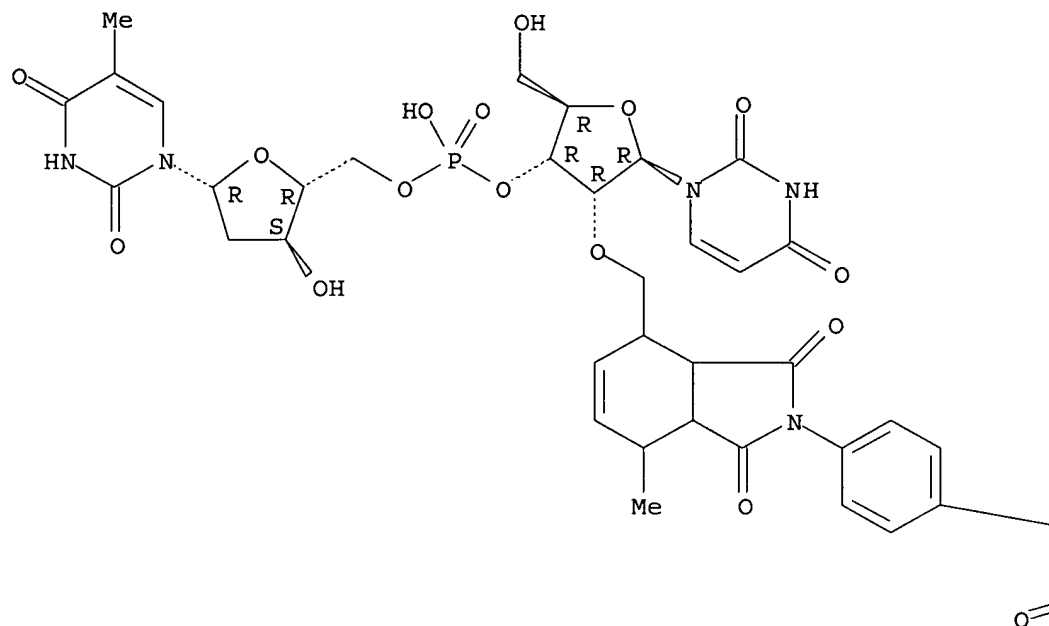


RN 210406-18-1 HCAPLUS

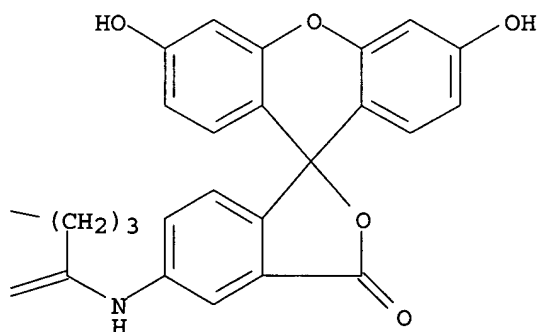
CN Thymidine, 2'-O-[[2-[4-[4-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-4-oxobutyl]phenyl]-2,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-1H-isoindol-4-yl]methyl]uridylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

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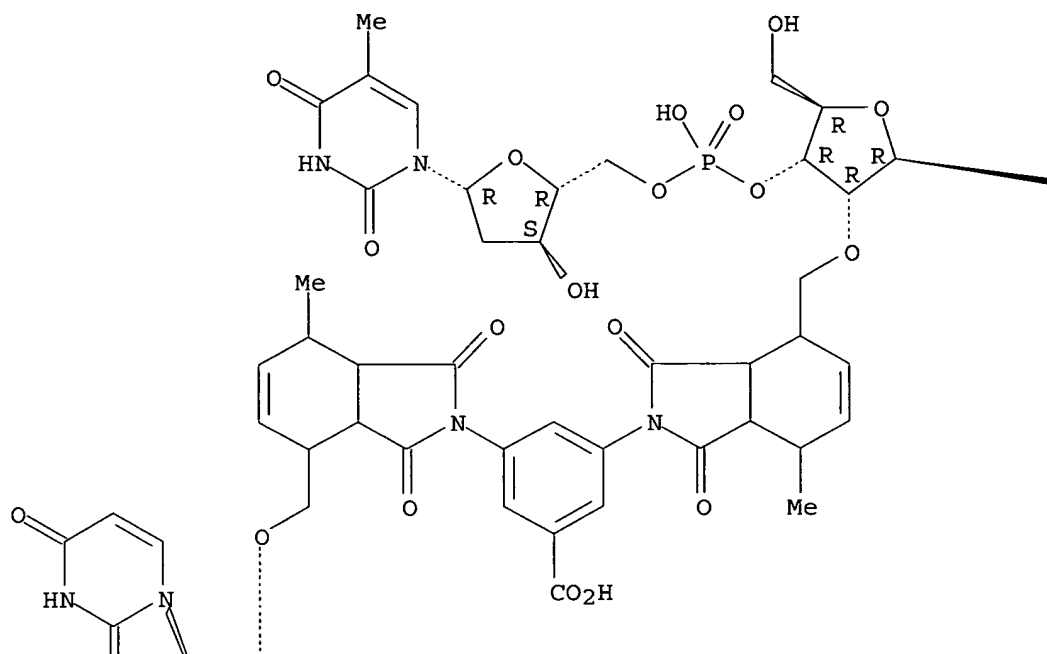
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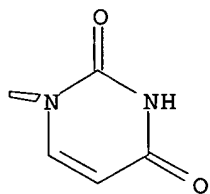
RN 690242-96-7 HCAPLUS
 CN Uridine, 2',2'''-O-[(5-carboxy-1,3-phenylene)bis[(1,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-2H-isoindole-2,4-diyl)methylene]]bis[thymidyl-(5'→3')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

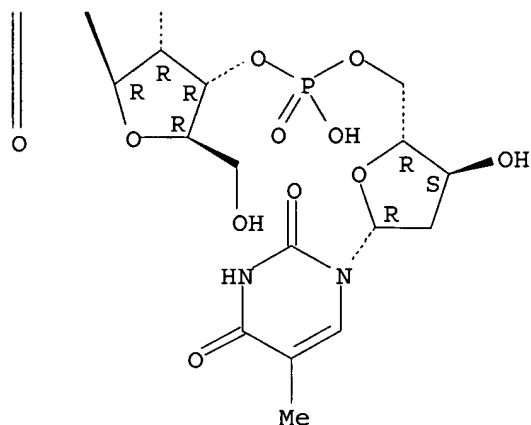
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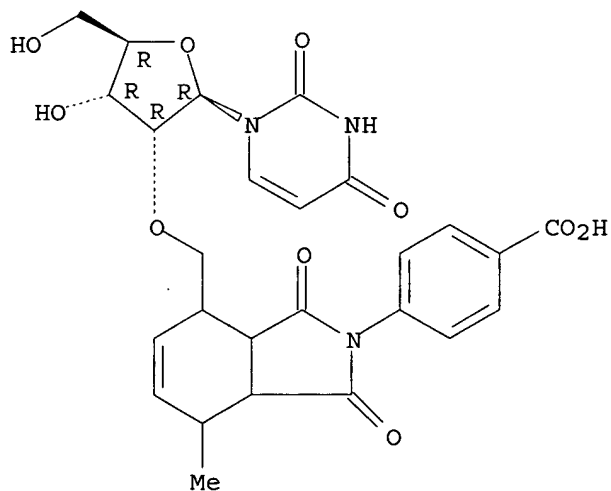
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RN 690633-59-1 HCAPLUS

CN Uridine, 2'-O-[[2-(4-carboxyphenyl)-2,3,3a,4,7,7a-hexahydro-7-methyl-1,3-dioxo-1H-isoindol-4-yl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 14 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:912711 HCAPLUS

DOCUMENT NUMBER: 139:365177

TITLE: Method for immobilizing oligonucleotides employing the
Diels Alder cycloaddition
bio-conjugation method

INVENTOR(S): Pieken, Wolfgang; Wolter, Andreas; Sebesta, David P.;
Leuck, Michael; Latham-Timmons, Hallie A.; Pilon,
John; Husar, Gregory M.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S.
Ser. No. 341,337.
CODEN: USXXCO

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 7
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003215801	A1	20031120	US 2001-845742	20010501 <--
WO 9830575	A1	19980716	WO 1998-US649	19980108 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6737236	B1	20040518	US 1999-341337	19990708 <--
PRIORITY APPLN. INFO.:			WO 1998-US649	W 19980108 <--
			US 1999-341337	A2 19990708 <--
			US 2000-201561P	P 20000501 <--
			US 2001-265020P	P 20010130
			US 1997-34651P	P 19970108 <--
			US 1997-780517	A2 19970108 <--
			US 1997-58206P	P 19970908 <--
			US 1998-51449	A2 19980406 <--

OTHER SOURCE(S): MARPAT 139:365177

ED Entered STN: 21 Nov 2003

AB This invention discloses a novel method for immobilizing mols. to a support in solid phase synthesis of DNA. Specifically, this invention discloses a method of immobilizing derivatized biomols., such as oligonucleotides and DNA, using cycloaddn. reactions, such as the Diels-Alder reaction. Included in this invention are the novel immobilized biomols. that can be prepared according to the method of this invention. Thus, glass slide CPG-bound maleimide silane reagent I was prepared and submitted to a Diels Alder cycloaddn. with cyclohexadiene-oligodeoxyribonucleotide to give the corresponding polymer supported DNA conjugate.

IC ICM C12Q001-68

ICS G01N033-53; G01N033-542; B05D003-00

INCL 435006000; 435007900; 435007500; 427002110

CC 33-10 (Carbohydrates)

Section cross-reference(s): 6, 9

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cyclohexadiene derivative, reaction products with carboxymethyl dextran supported maleimide; method for immobilizing oligonucleotides employing the Diels Alder cycloaddn. bio-conjugation method)

IT Diels-Alder reaction

Solid phase synthesis

(method for immobilizing oligonucleotides employing the Diels Alder cycloaddn. bio-conjugation method)

IT DNA

Oligodeoxyribonucleotides

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(method for immobilizing oligonucleotides employing the Diels

Alder cycloaddn. bio-conjugation
method)

IT 154916-94-6P, 2,4-Cyclohexadiene-1-methanol **290355-85-0P**
359867-65-5P 372107-87-4P 372107-88-5P 372107-89-6P 372107-90-9P
372107-91-0P 372107-92-1P 372107-93-2P 372107-94-3P 372107-95-4P
372107-99-8P 372108-00-4P 373654-38-7P 373654-39-8P 374121-75-2P
374121-77-4P 374121-80-9P 374121-81-0P 374121-82-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method for immobilizing oligonucleotides employing the Diels

Alder cycloaddn. bio-conjugation
method)

IT 25322-68-3DP, Polyethylene glycol, cyclohexadiene derivative, reaction products with carboxymethyl dextran supported maleimide 134874-49-ODP, reaction products with carboxymethyl dextran supported maleimide 180257-58-3P 303740-28-5DP, reaction products with carboxymethyl dextran supported maleimide **372107-96-5DP**, glass polymer support 372107-98-7DP, carboxymethyl dextran supported 372107-98-7DP, carboxymethyl dextran supported, reaction products with polyethylene glycol derivs. 372520-13-3DP, glass polymer support 372536-62-4DP, carboxymethyl dextran supported 372536-63-5DP, carboxymethyl dextran supported 373654-40-1DP, glass polymer support 373654-41-2DP, glass polymer support 374121-78-5DP, polymer support

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(method for immobilizing oligonucleotides employing the Diels
Alder cycloaddn. bio-conjugation
method)

IT 108-30-5, Succinic anhydride, reactions 110-15-6, Succinic acid, reactions 128-53-0, N-Ethyl maleimide 919-30-2 1122-28-7, 4,5-Dicyanoimidazole 1468-95-7, 9-Anthracenemethanol **1679-51-2**, 1,2,3,6-Tetrahydrobenzylalcohol 4246-51-9 55750-62-4 114616-27-2 150347-54-9 180257-58-3D, polymer support 213758-83-9 312745-91-8 372107-97-6 372108-01-5 374121-76-3 374121-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(method for immobilizing oligonucleotides employing the Diels
Alder cycloaddn. bio-conjugation
method)

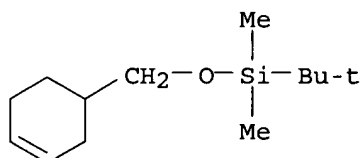
IT **290355-85-0P**

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(method for immobilizing oligonucleotides employing the Diels
Alder cycloaddn. bio-conjugation
method)

RN 290355-85-0 HCAPLUS

CN Silane, (3-cyclohexen-1-ylmethoxy) (1,1-dimethylethyl)dimethyl- (9CI) (CA INDEX NAME)



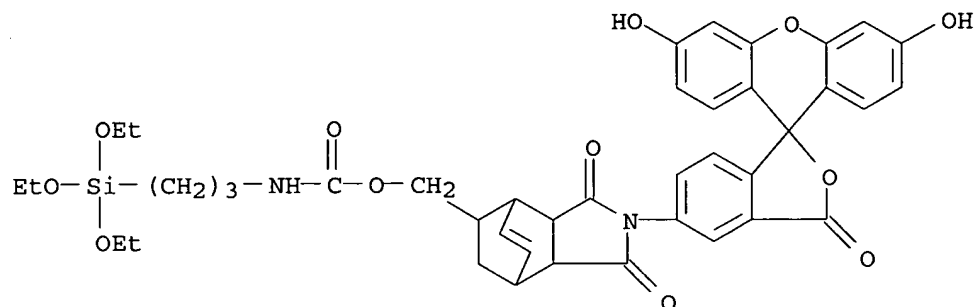
IT **372107-96-5DP**, glass polymer support

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)

RN 372107-96-5 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, [2-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2,3,3a,7a-tetrahydro-1,3-dioxo-4,7-ethano-1H-isoindol-8-yl]methyl ester (9CI) (CA INDEX NAME)



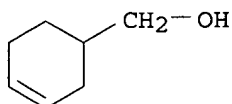
IT 1679-51-2, 1,2,3,6-Tetrahydrobenzylalcohol

RL: RCT (Reactant); RACT (Reactant or reagent)

(method for immobilizing oligonucleotides employing the **Diels Alder cycloaddn. bio-conjugation** method)

RN 1679-51-2 HCAPLUS

CN 3-Cyclohexene-1-methanol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L242 ANSWER 15 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:817502 HCAPLUS

DOCUMENT NUMBER: 140:275850

TITLE: Drug targeting by macromolecules without recognition unit?

AUTHOR(S): Hudecz, Ferenc; Remenyi, Judit; Szabo, Rita; Koczan, Gyoergy; Mezo, Gabor; Kovacs, Peter; Gaal, Dezso

CORPORATE SOURCE: Research Group of Peptide Chemistry, Hungarian Academy of Sciences, Eotvoes L. University, Budapest, Hung.

SOURCE: Journal of Molecular Recognition (2003), 16(5), 288-298

CODEN: JMORE4; ISSN: 0952-3499

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

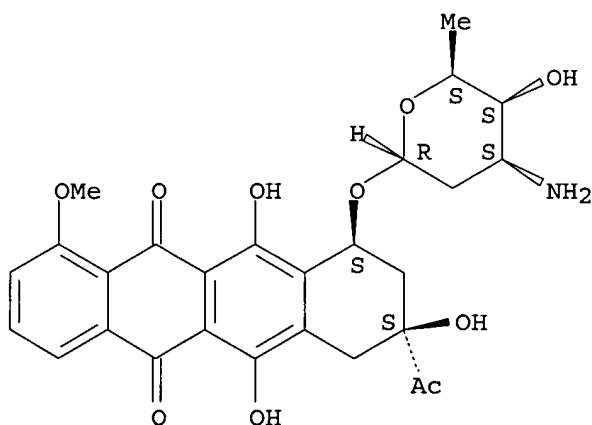
ED Entered STN: 17 Oct 2003

AB A review is given on the ability of macromol. conjugates containing no specific recognition motifs to deliver anthracyclines (daunomycin, adriamycin) or methotrexate to target cells such as tumor cells or macrophages. Conjugates with natural (**proteins**, DNA, **carbohydrates**) and synthetic macromols. (linear and branched chain poly- α -amino acids, non-biodegradable DIVEA, HPMA etc.) will be

reviewed. Exptl. data from several labs. indicate that these conjugates are taken up by cells mainly by fluid-phase or adsorptive endocytosis. It is believed that these processes do not involve "specific receptors". Two examples of methotrexate and daunomycin conjugates will be discussed to show the effect of the chemical structure of branched chain **polypeptides** on the uptake and antitumor or antiparasitic (Leishmania donovani infection) efficacy of conjugates.

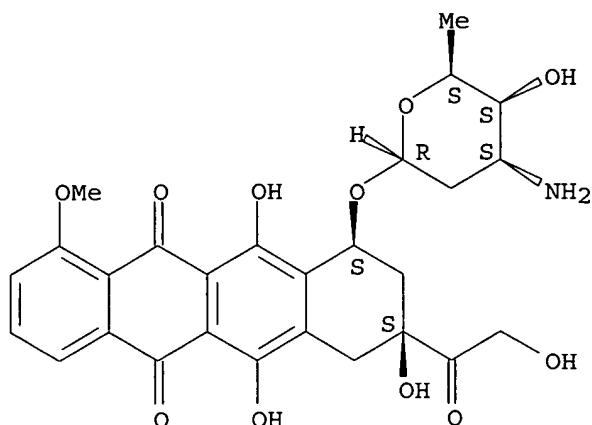
- CC 63-0 (Pharmaceuticals)
 ST review macromol **polypeptide** HEMA DIVEA carrier antitumor leishmanicide uptake
 IT **Drug delivery systems**
 (carriers; antitumor and antileishmanicide drug delivery by natural and synthetic macromols.)
 IT **Peptides, biological studies**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (conjugate with antitumor and leishmanicidal agents; antitumor and antileishmanicide drug delivery by natural and synthetic macromols.)
 IT Protozoacides
 (leishmanicides, conjugate with **polypeptides**; antitumor and antileishmanicide drug delivery by natural and synthetic macromols.)
 IT 59-05-2, Methotrexate 20830-81-3, Daunomycin 25316-40-9, Adriamycin
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (conjugate with macromols.; antitumor and antileishmanicide drug delivery by natural and synthetic macromols.)
 IT 20830-81-3, Daunomycin 25316-40-9, Adriamycin
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (conjugate with macromols.; antitumor and antileishmanicide drug delivery by natural and synthetic macromols.)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- RN 25316-40-9 HCAPLUS
 CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 97 THERE ARE 97 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 16 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:539687 HCAPLUS

DOCUMENT NUMBER: 137:103873

TITLE: Transcobalamin-binding **conjugates** useful for treating abnormal cellular proliferation

INVENTOR(S): Collins, Douglas A.; Hogenkamp, Henricus P. C.

PATENT ASSIGNEE(S): Mayo Foundation for Medical Education and Research, USA; Regents of the University of Minnesota

SOURCE: PCT Int. Appl., 151 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055530	A2	20020718	WO 2001-US51328	20011025 <--
WO 2002055530	A3	20030123		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2427146	AA	20020718	CA 2001-2427146	20011025 <--
US 2002151525	A1	20021017	US 2001-27593	20011025 <--
EP 1334114	A2	20030813	EP 2001-989335	20011025 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
TW 228512	B1	20050301	TW 2001-90126465	20011025 <--

PRIORITY APPLN. INFO.:

US 2000-243082P

P 20001025 <--

US 2000-243112P

P 20001025 <--

WO 2001-US51328

W 20011025

OTHER SOURCE(S): MARPAT 137:103873

ED Entered STN: 19 Jul 2002

AB The invention discloses a transcobalamin-binding conjugate, composition and method for the treatment, prophylaxis and/or diagnosis of proliferative disorders, which is highly and efficiently absorbed at the site of abnormal cellular proliferation. Compds. of the invention are ligands binding to vitamin B12 transport **proteins** (transcobalamin I, II, and II and intrinsic factor) and linked to a therapeutic and/or diagnostic agent.

IC ICM C07H023-00

ICS A61K031-70; A61P035-00

CC 1-6 (Pharmacology)

Section cross-reference(s): 9, 26

ST cobalamin deriv prepn therapeutic diagnostic **conjugate**
transcobalamin binding antiproliferative; intrinsic factor binding
cobalamin deriv therapeutic diagnostic **conjugate**
antiproliferative

IT Radionuclides, biological studies

RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugates** with vitamin B12 transport **protein**
ligands; transcobalamin binding **conjugates** useful for
treatment and diagnosis of abnormal cellular proliferation)

IT Amines, reactions

Amino acids, reactions

Peptides, reactions

Polyamines

RL: RCT (Reactant); RACT (Reactant or reagent)

(**linker**; transcobalamin binding **conjugates** useful
for treatment and diagnosis of abnormal cellular proliferation)

IT Polyamides, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(poly(amino acids), **linker**; transcobalamin binding **conjugates**
useful for treatment and diagnosis of abnormal cellular proliferation)

IT Amines, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(polyamines, nonpolymeric, **linker**; transcobalamin binding
conjugates useful for treatment and diagnosis of abnormal
cellular proliferation)

IT Disease, animal

(proliferative; transcobalamin binding **conjugates** useful for
treatment and diagnosis of abnormal cellular proliferation)

IT Cytotoxic agents

Diagnosis

Drug delivery systems

Human

(transcobalamin binding **conjugates** useful for treatment and
diagnosis of abnormal cellular proliferation)

IT Intrinsic factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(transcobalamin binding **conjugates** useful for treatment and
diagnosis of abnormal cellular proliferation)

IT 71-44-3, Spermine 109-76-2, 1,3-Diaminopropane 110-60-1,

1,4-Diaminobutane 124-09-4, 1,6-Diaminohexane, reactions 124-20-9,

Spermidine 462-94-2, 1,5-Diaminopentane 21810-43-5,

Pentamethylenehexamine

RL: RCT (Reactant); RACT (Reactant or reagent)

- (linker; transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 38000-06-5DP, Poly-L-lysine, reaction products with cyanocobalamin
 RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction; transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 190835-43-9P 190835-44-0P 335605-88-4P 335605-89-5P 335605-90-8P 443127-78-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction; transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 333-93-7, 1,4-Diaminobutane dihydrochloride 373-88-6, 2,2,2-Trifluoroethylamine hydrochloride 407-25-0, Trifluoroacetic anhydride 892-48-8, 5'-Chloro-5'-deoxyadenosine 2923-18-4, Sodium trifluoroacetate 23911-26-4, DTPA dianhydride 25104-18-1, Poly-L-lysine 25988-63-0, Poly-L-lysine hydrobromide 26264-28-8 26588-20-5 38000-06-5, Poly-L-lysine SRU 38218-55-2, Cyanocobalamin-d-carboxylic acid 82556-15-8, Cyanocobalamin-b,d-dicarboxylic acid 121483-62-3 376394-84-2, Methylcobalamin-b-carboxylic acid 443127-79-5, Adenosylcobalamin-b-carboxylic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction; transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 67-43-6, DTPA 67-43-6D, DTPA, cyanocobalamin **conjugates** 68-19-9, Cyanocobalamin 68-19-9D, Cyanocobalamin, DTPA **conjugates** 12774-24-2, Transcobalamin
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 68-19-9DP, Cyanocobalamin, reaction products with poly-L-lysine, DTPA **conjugate** 38000-06-5DP, Poly-L-lysine SRU, reaction products with cyanocobalamin, DTPA **conjugate** 191029-44-4P 191029-45-5P 443127-80-8P
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 15663-27-1D, Cisplatin, **conjugates** with vitamin B12 transport **protein** ligands 20830-81-3D, Daunorubicin, **conjugates** with vitamin B12 transport **protein** ligands 23214-92-8D, Doxorubicin, **conjugates** with vitamin B12 transport **protein** ligands 33069-62-4D, Taxol, **conjugates** with vitamin B12 transport **protein** ligands 54083-22-6D, Rubidazone, **conjugates** with vitamin B12 transport **protein** ligands 58957-92-9D, Idarubicin, **conjugates** with vitamin B12 transport **protein** ligands 114977-28-5D, Taxotere, **conjugates** with vitamin B12 transport **protein** ligands
 RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)
- IT 25988-63-0DP, Poly-L-lysine hydrobromide, reaction products with cyanocobalamin-b-carboxylic acid 26588-20-5DP, reaction products with cyanocobalamin-b-carboxylic acid 38218-77-8DP, Cyanocobalamin-b-carboxylic acid, reaction products with poly-L-lysine hydrobromide 335605-87-3P 335605-91-9P 335605-92-0P 335605-93-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)

IT 20830-81-3D, Daunorubicin, **conjugates** with vitamin B12 transport **protein** ligands

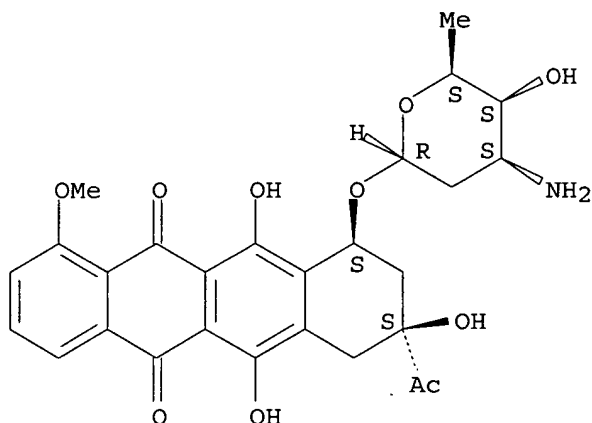
RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(transcobalamin binding **conjugates** useful for treatment and diagnosis of abnormal cellular proliferation)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 17 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:487417 HCAPLUS

DOCUMENT NUMBER: 137:52408

TITLE: Antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity

INVENTOR(S): Saragovi, H. Uri; Guillemard, Veronique

PATENT ASSIGNEE(S): McGill University, Can.

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002049672	A2	20020627	WO 2001-CA1854	20011221 <--
WO 2002049672	A3	20030103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,			

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2002016864 A5 20020701 AU 2002-16864 20011221 <--
 EP 1343531 A2 20030917 EP 2001-271229 20011221 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2004115209 A1 20040617 US 2003-600623 20030620 <--
 PRIORITY APPLN. INFO.: US 2000-256987P P 20001221 <--
 WO 2001-CA1854 W 20011221

ED Entered STN: 28 Jun 2002

AB The present invention relates to a compound to selectively kill or protect a target cell in a patient with reduced systemic toxicity, which comprises W-Z-X wherein, X is a toxic agent or protective agent; W is a biol. active mol. which is adapted to selectively bind the target cell directly or indirectly; and Z is a breakable linker which covalently links W and X together, wherein the linked W remains bioavailable and bioactive, whereby the breakable linker releases the toxic agent or protective agent into the cell. Conjugates of paclitaxel and doxorubicin with monoclonal antibodies were prepared and tested for cytotoxicity.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ST antitumor agent **conjugate** antibody targeting cell

IT Antitumor agents

Drug delivery systems

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Anthracyclines

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Antisense **oligonucleotides**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Cell adhesion molecules

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Gene, animal

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Growth factors, animal

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Hormones, animal, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT **Nucleosides**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT **Peptides**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

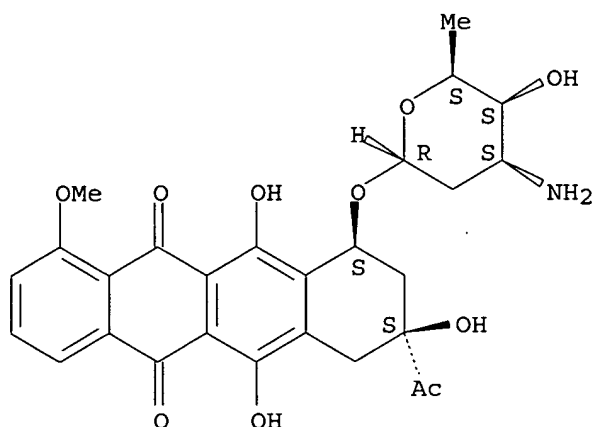
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)

IT Taxanes

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study) (damaging agents; antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT **Drug delivery systems**
(immunoconjugates; antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT **Antibodies and Immunoglobulins**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal, **conjugates**; antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT **Proteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (viral; antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 23214-92-8DP, Doxorubicin, **conjugates** with antibodies
33069-62-4DP, Paclitaxel, **conjugates** with antibodies
220644-02-0DP, **conjugates** with antibodies
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 117527-51-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 23214-92-8, Doxorubicin 33069-62-4, Paclitaxel
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 59-05-2, Methotrexate 1404-00-8, Mitomycin 20830-81-3, Daunomycin 25316-40-9, Adriamycin 56420-45-2, Epirubicin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 186322-81-6, Caspase
RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- IT 20830-81-3, Daunomycin 25316-40-9, Adriamycin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor agents **conjugated** with antibodies targeted for specific cells with reduced systemic toxicity)
- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

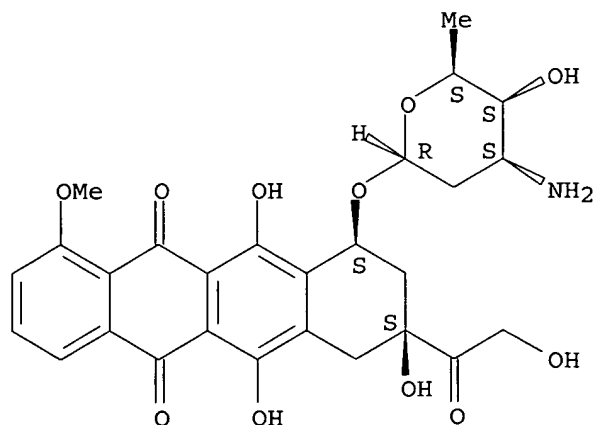
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 18 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:428650 HCAPLUS

DOCUMENT NUMBER: 137:15804

TITLE: Tetrapartate prodrugs, and preparation thereof

INVENTOR(S): Greenwald, Richard B.; Zhao, Hong

PATENT ASSIGNEE(S): Enzon, Inc., USA

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043663	A2	20020606	WO 2001-US45127	20011130 <--
WO 2002043663	A3	20020725		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2001031873	A1	20011018	US 2001-758993	20010112 <--
US 6720306	B2	20040413		
CA 2428018	AA	20020606	CA 2001-2428018	20011130 <--
AU 2002039405	A5	20020611	AU 2002-39405	20011130 <--
EP 1343494	A2	20030917	EP 2001-987164	20011130 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004518776	T2	20040624	JP 2002-545642	20011130 <--
PRIORITY APPLN. INFO.:				
			US 2000-728512	A 20001201 <--
			US 2001-758993	A 20010112
			US 1997-992435	B2 19971217 <--
			US 1998-183557	A2 19981030 <--
			WO 2001-US45127	W 20011130
OTHER SOURCE(S): MARPAT 137:15804				
ED Entered STN: 07 Jun 2002				
AB Tetrapartate prodrug compds. I [L1 = bifunctional linker; D = leaving group, residue of compound to be delivered into cell; Z (covalently linked to [D]n) = moiety actively transported into target cell, hydrophobic moiety, combinations thereof; Y1-Y4 = O, S, NR12; R11 = mono- or divalent polymer residue; R1, R4, R9 R10, R12 = H, C1-6 alkyl, C3-12 branched alkyl, C3-8 cycloalkyl, etc.; R2, R3, R5, R6 = H, C1-6 alkyl, C1-6 alkoxy, phenoxy, etc.; Ar (when included) forms multi-substituted aromatic hydrocarbon or multi-substituted heterocyclic group; m, r, s, t, u = 0, 1; p = 0, pos. integer; n = 1, 2] are provided, together with methods of preparing and using them. Preparation of doxorubicin-containing prodrugs according to the invention is described.				
IC ICM A61K				
CC 1-12 (Pharmacology)				
Section cross-reference(s): 34, 63				
IT Antitumor agents				
(and antitumor agent prodrugs and detectable tags, conjugates				
; tetrapartate prodrug preparation)				
IT Amino acids, biological studies				
Anthracyclines				
Fatty acids, biological studies				
Peptides, biological studies				
Polymers, biological studies				
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL				
(Biological study); USES (Uses)				
(conjugates; tetrapartate prodrug preparation)				
IT Drug delivery systems				
(prodrugs; tetrapartate prodrug preparation)				
IT 143180-75-0				
RL: BSU (Biological study, unclassified); BIOL (Biological study)				
(inhibitors, conjugates ; tetrapartate prodrug preparation)				
IT 52-90-4D, L-Cysteine, conjugates 56-40-6D, Glycine,				

conjugates 56-41-7D, L-Alanine, conjugates 56-45-1D, L-Serine, conjugates 56-84-8D, L-Aspartic acid, conjugates 56-86-0D, L-Glutamic acid, conjugates 56-87-1D, L-Lysine, conjugates 60-18-4D, L-Tyrosine, conjugates 61-90-5D, L-Leucine, conjugates 63-68-3D, L-Methionine, conjugates 63-91-2D, L-Phenylalanine, conjugates 71-00-1D, L-Histidine, conjugates 72-18-4D, L-Valine, conjugates 72-19-5D, L-Threonine, conjugates 73-22-3D, L-Tryptophan, conjugates 73-32-5D, L-Isoleucine, conjugates 74-79-3D, L-Arginine, conjugates 147-85-3D, L-Proline, conjugates 147-94-4D, Cytosine arabinoside, conjugates 148-82-3D, Melphalan, conjugates 2067-58-5D, conjugates 20830-81-3D, Daunorubicin, conjugates 23214-92-8D, Doxorubicin, conjugates 47066-32-0D, conjugates 95058-81-4D, Gemcitabine, conjugates 104845-49-0D, conjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tetrapartate prodrug preparation)

IT 20830-81-3D, Daunorubicin, conjugates

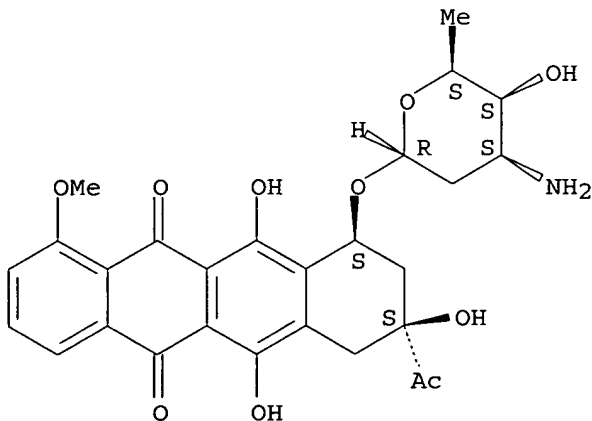
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tetrapartate prodrug preparation)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 19 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:185269 HCAPLUS

DOCUMENT NUMBER: 136:236836

TITLE: Peptide conjugated anti-cancer prodrugs

INVENTOR(S): Gengrinovitch, Stela

PATENT ASSIGNEE(S): Biosight Ltd., Israel

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020715	A2	20020314	WO 2001-IL839	20010905 <--
WO 2002020715	A3	20060112		
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2001088025	A5	20020322	AU 2001-88025	20010905 <--
EP 1581615	A2	20051005	EP 2001-967657	20010905 <--
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003216298	A1	20031120	US 2003-382240	20030305 <--
PRIORITY APPLN. INFO.:			US 2000-229733P	P 20000905 <--
			WO 2001-IL839	W 20010905

ED Entered STN: 15 Mar 2002

AB The present invention relates to pharmaceutical compns. comprising a targeting **peptide**, a protease specific cleavable **peptide**, and a chemotherapeutic drug that when conjugated are substantially inactive, but upon degradation of the cleavable sequence by a proteolytic enzyme abundant in or within that target cancer cell, the chemotherapeutic drug is released and becomes active, and to the use of these compns. for treatment of cancer.

IC ICM C12N

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 2

ST antitumor drug targeting prodrug **peptide conjugate** sequence

IT Antitumor agents
(antibiotic; **peptide-conjugated** anti-cancer prodrugs)

IT Nutrients
(antinutrients; **peptide-conjugated** anti-cancer prodrugs)

IT Antibiotics
(antitumor; **peptide-conjugated** anti-cancer prodrugs)

IT **Peptides, biological studies**
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates; peptide-conjugated** anti-cancer prodrugs)

IT **Glycosaminoglycans, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**drug conjugates; peptide-conjugated** anti-cancer prodrugs)

IT **Drug delivery systems**
(injections, i.v.; **peptide-conjugated** anti-cancer prodrugs)

IT Alkylating agents, biological
Antitumor agents

- Cytotoxic agents
 (peptide-conjugated anti-cancer prodrugs)
- IT Androgens
 Antiandrogens
 Antiestrogens
 Corticosteroids, biological studies
 Estrogens
 Hormones, animal, biological studies
 Progestogens
 Toxins
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (peptide-conjugated anti-cancer prodrugs)
- IT **Drug delivery systems**
 (prodrugs; peptide-conjugated anti-cancer prodrugs)
- IT Alkaloids, biological studies
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vinca; peptide-conjugated anti-cancer prodrugs)
- IT 9039-48-9, Aromatase
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inhibitors; peptide-conjugated anti-cancer prodrugs)
- IT 50-18-0, Cyclophosphamide 50-44-2, 6-Mercaptopurine 50-76-0, Dactinomycin 51-21-8, 5-Fluorouracil 52-24-4, Thiotepa 53-19-0, Mitotane 55-86-7, Nitrogen mustard 55-98-1, Busulfan 57-22-7, Vincristine 59-05-2, Methotrexate 127-07-1, Hydroxyurea 147-94-4, Cytosine arabinoside 148-82-3, Melphalan 154-42-7, 6-Thioguanine 154-93-8, Carmustin 305-03-3, Chlorambucil 645-05-6, Hexamethylmelamine 671-16-9, Procarbazine 865-21-4, Vinblastine 1404-00-8, Mitomycin 3778-73-2, Ifosfamide 4342-03-4, Dacarbazine 4375-07-9, Epipodophyllotoxin 11056-06-7, Bleomycin 13010-20-3, Nitrosourea 13010-47-4, Lomustin 13909-09-6, Semustine 15663-27-1, Cisplatin 18378-89-7, Plicamycin 18883-66-4, Streptozocin 20830-81-3, Daunorubicin 23214-92-8, Doxorubicin 29767-20-2, Teniposide 33419-42-0, Etoposide 41575-94-4, Carboplatin 53643-48-4, Vindesine 58957-92-9, Idarubicin 65271-80-9, Mitoxantrone 403477-36-1 403477-37-2 403477-38-3 403477-39-4 403477-40-7
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (peptide-conjugated anti-cancer prodrugs)
- IT 9001-12-1, Matrix metalloproteinase 1 9039-53-6, Urokinase plasminogen activator 71965-46-3, Cathepsin s 127464-60-2, Vascular endothelial growth factor 139639-23-9, Tissue plasminogen activator 146480-36-6, Matrix metalloproteinase 9
 RL: PRP (Properties)
 (peptide-conjugated anti-cancer prodrugs)
- IT 175176-66-6D, drug conjugates 403477-32-7D, drug conjugates 403477-33-8D, drug conjugates 403477-34-9D, drug conjugates 403477-35-0D, drug conjugates
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (peptide-conjugated anti-cancer prodrugs)
- IT 9001-92-7, **Proteinase**
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (tumor-specific; peptide-conjugated anti-cancer prodrugs)
- IT 18378-89-7, Plicamycin 20830-81-3, Daunorubicin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

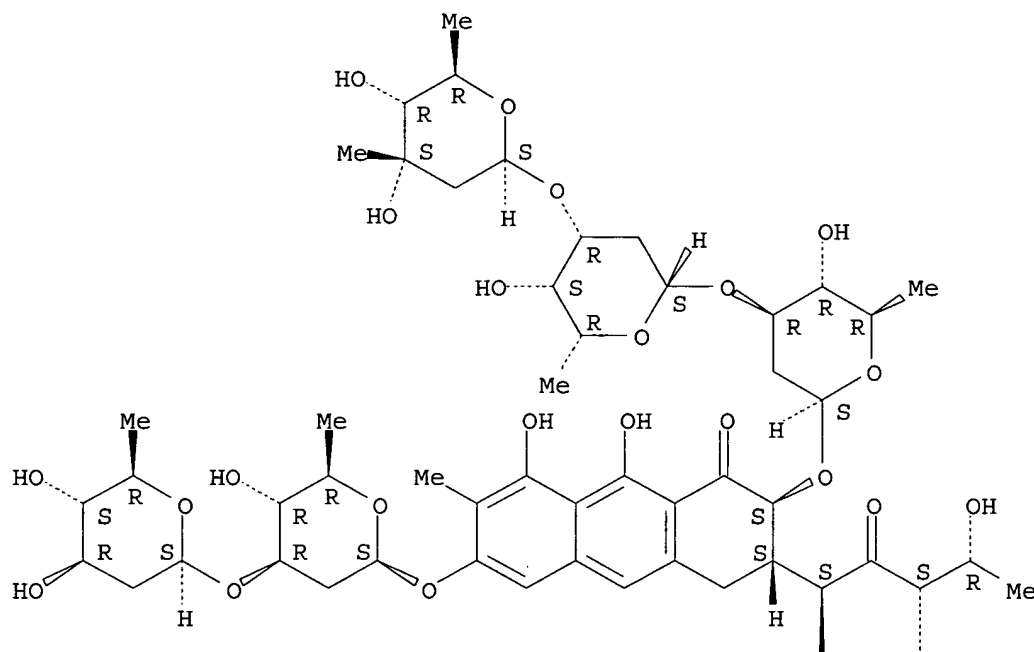
(peptide-conjugated anti-cancer prodrugs)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy- β -D-arabino-hexopyranosyl)- β -D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl- β -D-ribo-hexopyranosyl-(1 \rightarrow 3)-O-2,6-dideoxy- β -D-lyxo-hexopyranosyl-(1 \rightarrow 3)-2,6-dideoxy- β -D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



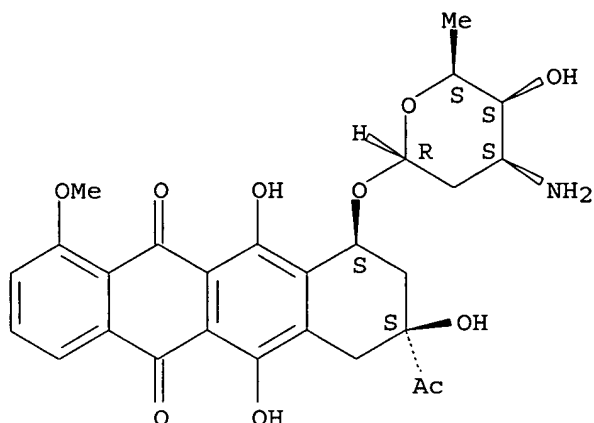
PAGE 2-A



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 20 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:157786 HCAPLUS

DOCUMENT NUMBER: 136:200414

TITLE: Synthesis of water-soluble saccharide conjugates and saccharide mimetics by Diels-Alder reaction

INVENTOR(S): Weissler, Manfred; Kliem, Hans-Christian; Sauerbrei, Bernd

PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung des
Offentlichen Rechts, Germany

SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002016378	A1	20020228	WO 2001-DE3237	20010822 <--
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10041221	A1	20020314	DE 2000-10041221	20000822 <--
EP 1313750	A1	20030528	EP 2001-962674	20010822 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2004059101	A1	20040325	US 2003-362961	20030908 <--
US 6958395	B2	20051025		
PRIORITY APPLN. INFO.:			DE 2000-10041221	A 20000822 <--
			WO 2001-DE3237	W 20010822

OTHER SOURCE(S): CASREACT 136:200414

ED Entered STN: 01 Mar 2002

AB A synthesis of title compds., e.g. (I or II), for use as intermediates in further reactions was claimed. Thus, for example, 3,4-bis-hydroxymethyl-furan was reacted with a protected sugar in the form of a trichloroacetimidate to give the mono- or disubstituted furan intermediate, which was then used in a Diels-Alder reaction with an appropriately N-substituted maleimide to give products similar to II. Similarly, product I could be prepared from the intermediate from glycosylation with 2,5-bis-hydroxymethyl-furan. No data was

presented regarding the solubility of products.

- IC ICM C07H001-00
ICS C07H015-26
- CC 33-3 (Carbohydrates)
Section cross-reference(s): 28
- ST **Diels Alder** furan maleimide prepn glycoside water sol
- IT **Diels-Alder reaction**
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT **Carbohydrates, preparation**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT Alkadienes
Cycloalkadienes
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT 146655-32-5P 150674-87-6P 400605-73-4P 400605-74-5P 400605-75-6P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT 6059-44-5P 17450-30-5P 17616-03-4P 27574-80-7P 57078-98-5P
342655-58-7P 400605-77-8P **400605-80-3P 400605-89-2P**
400605-91-6P 400605-95-0P 400605-98-3P 400606-01-1P
400606-05-5P 400606-13-5P 400606-16-8P 400606-25-9P
400606-27-1P 400606-29-3P 400606-31-7P
400606-33-9P 400606-36-2P 400606-38-4P
400606-40-8P 400606-42-0P 400606-44-2P 400606-46-4P
400707-58-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT 56-12-2, 4-Aminobutanoic acid, reactions 108-31-6, 2,5-Furandione, reactions 124-22-1, Dodecylamine 124-30-1, Stearylamine 128-53-0
1883-75-6, 2,5-Furandimethanol **2126-93-4**, Cholesterylamine
2783-17-7, 1,12-Diaminododecane 4097-89-6 14496-24-3,
3,4-Furandimethanol 51649-83-3, 5-Aminofluorescein 54897-59-5
55743-71-0 55750-48-6 120239-63-6 157503-18-9 159684-06-7
191276-09-2 203435-09-0 305372-39-8 400605-72-3 400605-83-6
400605-86-9 400605-93-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT 139112-38-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)
- IT **400605-80-3P 400605-89-2P 400605-91-6P**

400605-95-0P 400606-05-5P 400606-27-1P

400606-29-3P 400606-31-7P 400606-33-9P

400606-36-2P 400606-38-4P 400707-58-6P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

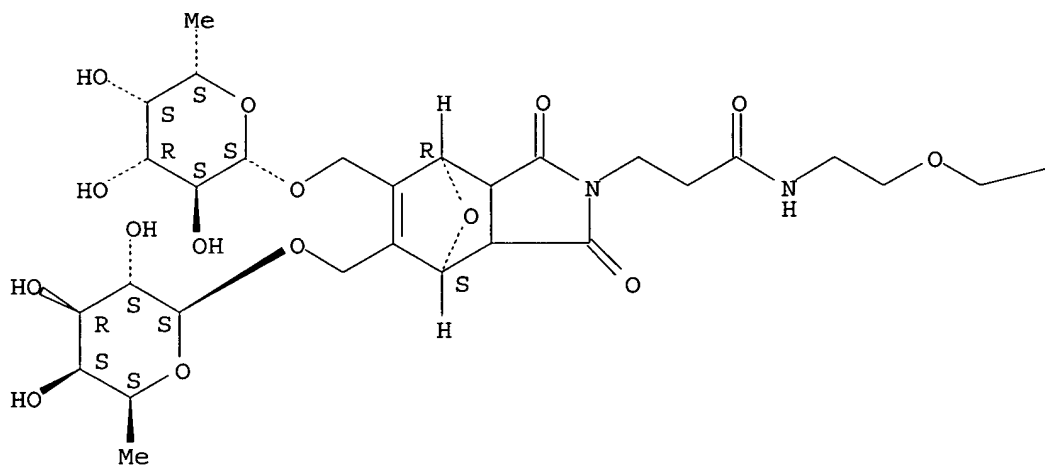
(preparation of water-soluble **saccharide conjugates** and **saccharide** mimetics by **Diels-Alder** reaction)

RN 400605-80-3 HCAPLUS

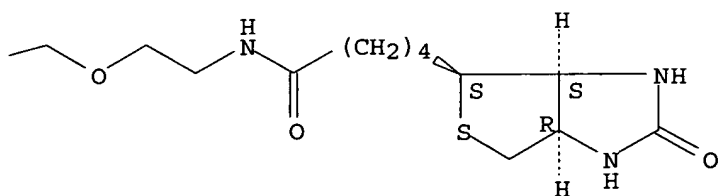
CN 4,7-Epoxy-2H-isoindole-2-propanamide, 5,6-bis[[[6-deoxy-β-L-galactopyranosyl)oxy)methyl]-N-[2-[2-[2-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]ethoxy]ethoxy]ethyl]-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-, (4R,7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

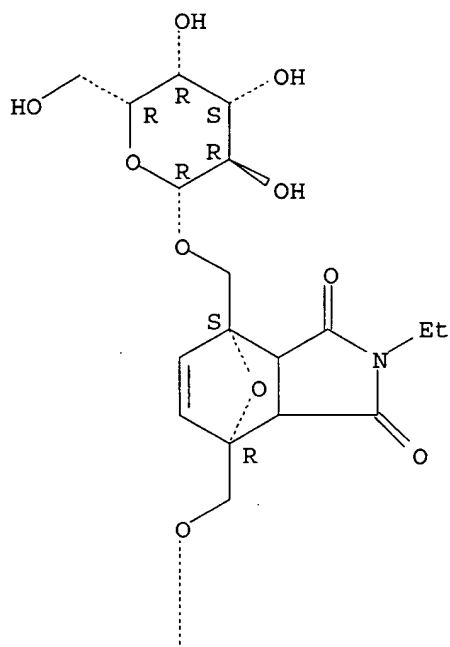


RN 400605-89-2 HCAPLUS

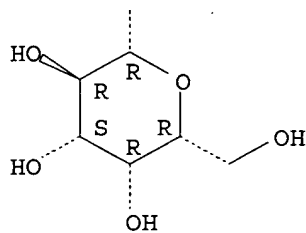
CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-ethyl-4,7-bis[[[β-D-galactopyranosyloxy)methyl-3a,4,7,7a-tetrahydro-, (4R,7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



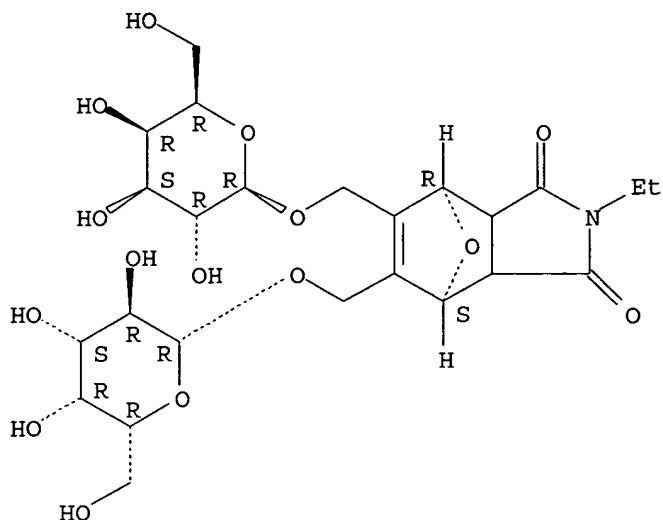
PAGE 2-A



RN 400605-91-6 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-ethyl-5,6-bis[(β -D-galactopyranosyloxy)methyl-3a,4,7,7a-tetrahydro-, (4R,7S)- (9CI) (CA INDEX NAME)

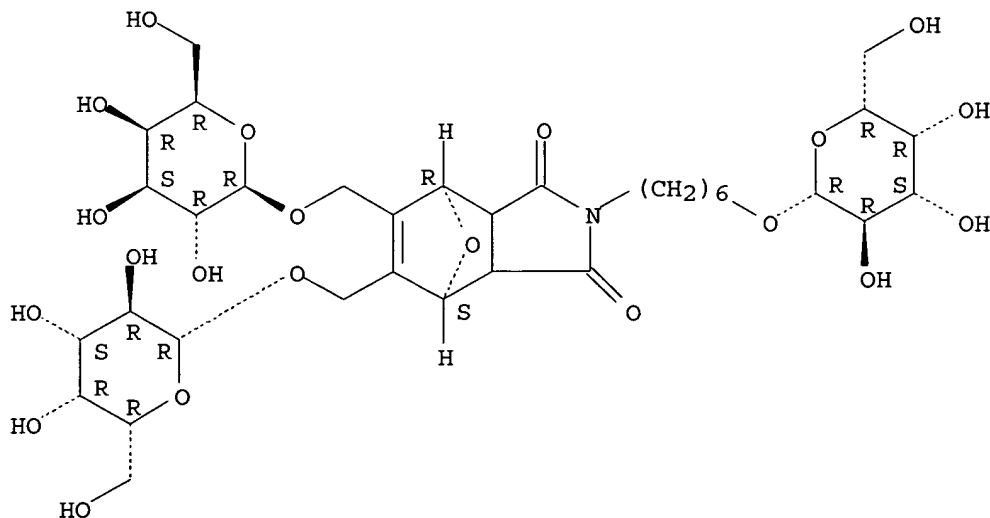
Absolute stereochemistry.



RN 400605-95-0 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-[6-(β-D-galactopyranosyloxy)hexyl]-5,6-bis[(β-D-galactopyranosyloxy)methyl-3a,4,7,7a-tetrahydro-, (4R,7S)- (9CI) (CA INDEX NAME)]

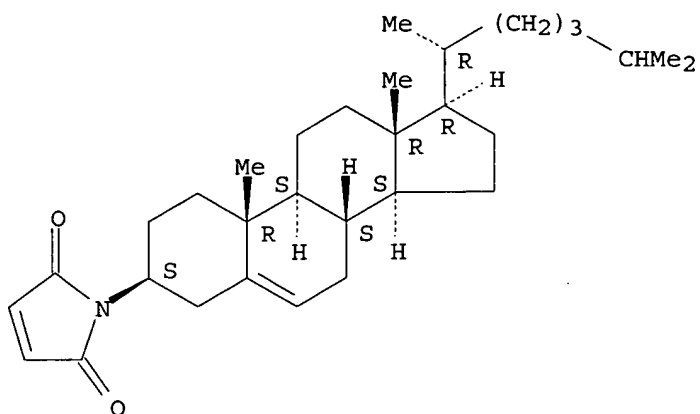
Absolute stereochemistry.



RN 400606-05-5 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(3β)-cholest-5-en-3-yl- (9CI) (CA INDEX NAME)

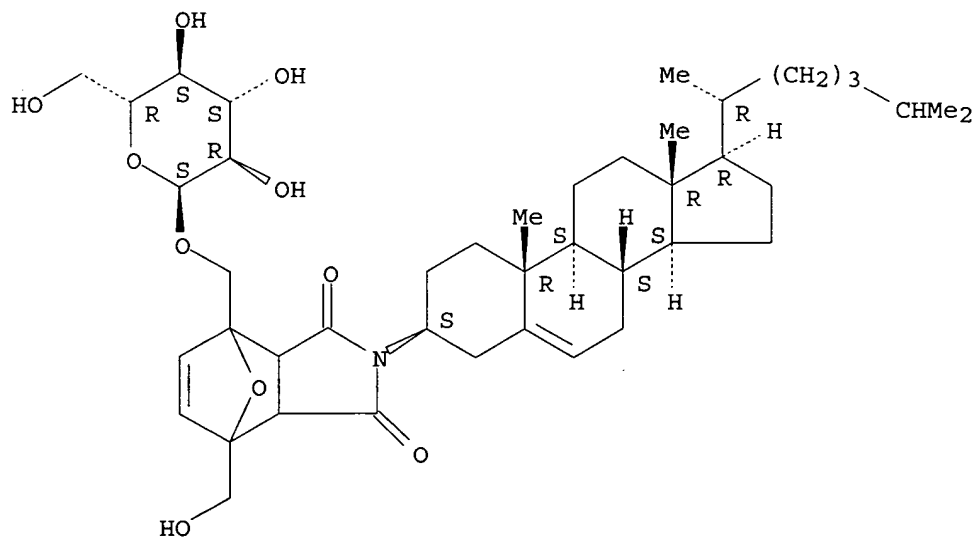
Absolute stereochemistry.



RN 400606-27-1 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-(3β)-cholest-5-en-3-yl-4-[(α-D-glucopyranosyloxy)methyl]-3a,4,7,7a-tetrahydro-7-(hydroxymethyl)-(9CI) (CA INDEX NAME)

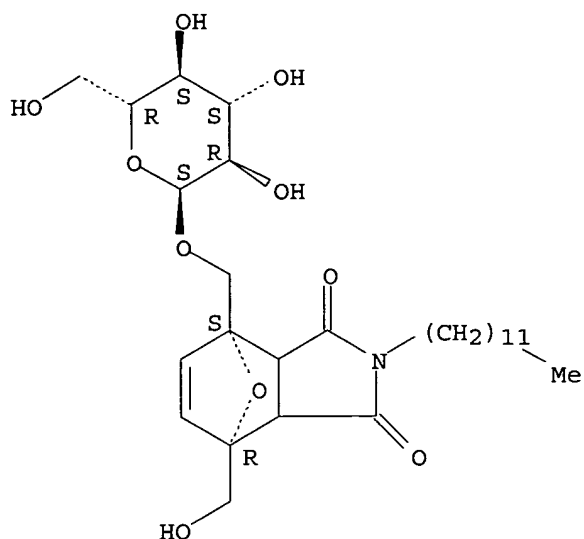
Absolute stereochemistry.



RN 400606-29-3 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-dodecyl-4-[(α-D-glucopyranosyloxy)methyl]-3a,4,7,7a-tetrahydro-7-(hydroxymethyl)-(4S,7R)-(9CI) (CA INDEX NAME)

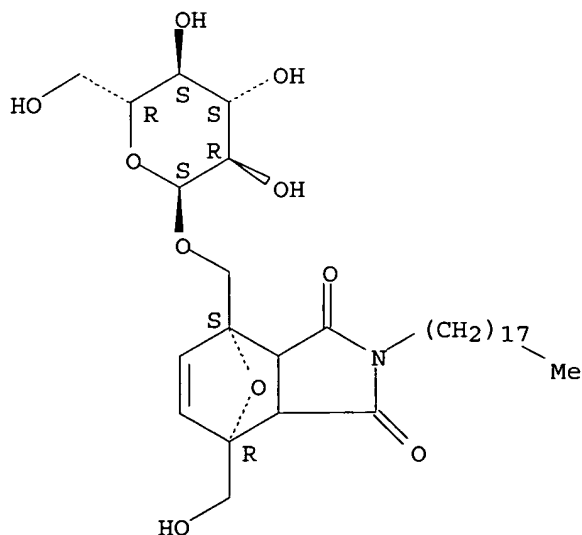
Absolute stereochemistry.



RN 400606-31-7 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 4-[(α-D-glucopyranosyloxy)methyl]-3a,4,7,7a-tetrahydro-7-(hydroxymethyl)-2-octadecyl-, (4S,7R)-(9CI) (CA INDEX NAME)

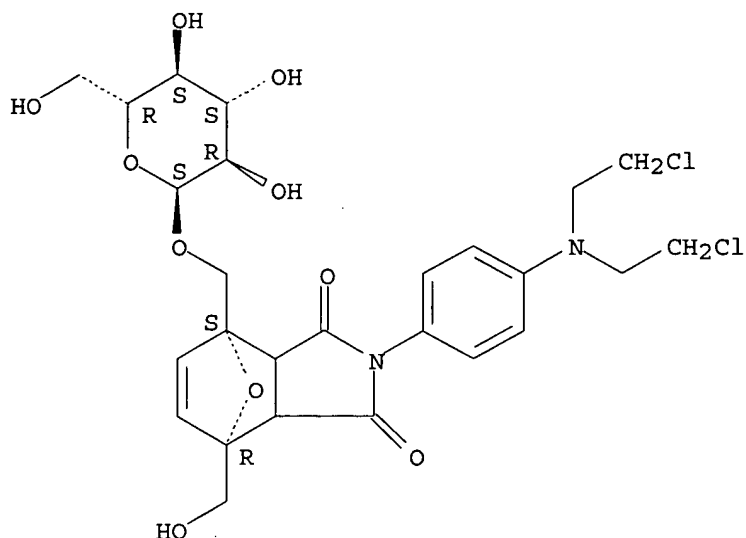
Absolute stereochemistry.



RN 400606-33-9 HCAPLUS

CN 4,7-Epoxy-1H-isoindole-1,3(2H)-dione, 2-[4-[bis(2-chloroethyl)aminophenyl]-4-[(α-D-glucopyranosyloxy)methyl]-3a,4,7,7a-tetrahydro-7-(hydroxymethyl)-, (4S,7R)-(9CI) (CA INDEX NAME)

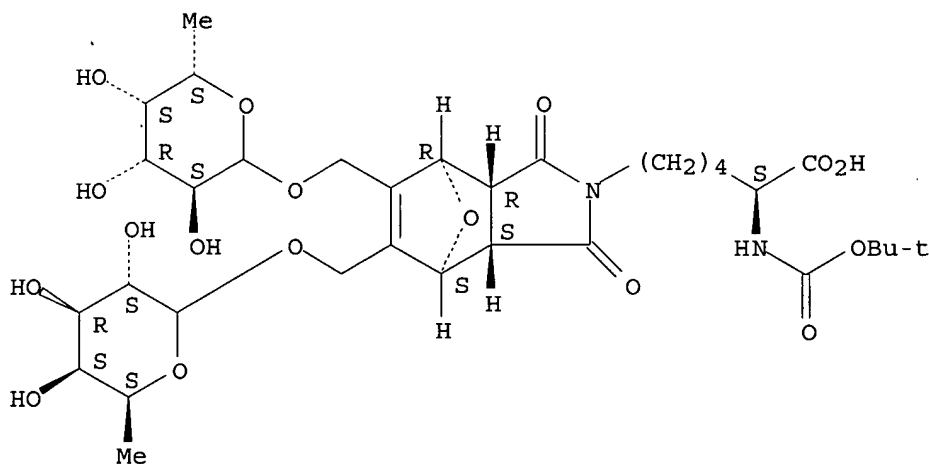
Absolute stereochemistry.



RN 400606-36-2 HCAPLUS

CN 4,7-Epoxy-2H-isoindole-2-hexanoic acid, 5,6-bis[[(6-deoxy-L-galactopyranosyl)oxy]methyl]-1,3,3a,4,7,7a-hexahydro-1,3-dioxo- α -[[(1,1-dimethylethoxy)carbonyl]amino]-, (α S,3aR,4R,7S,7aS) - (9CI) (CA INDEX NAME)

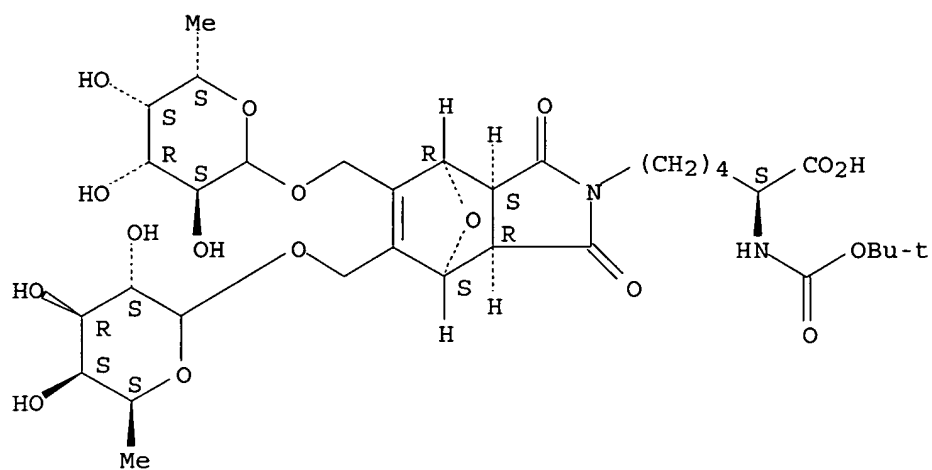
Absolute stereochemistry.



RN 400606-38-4 HCAPLUS

CN 4,7-Epoxy-2H-isoindole-2-hexanoic acid, 5,6-bis[[(6-deoxy-L-galactopyranosyl)oxy]methyl]- α -[[(1,1-dimethylethoxy)carbonyl]amino]-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-, (α S,3aR,4S,7R,7aS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

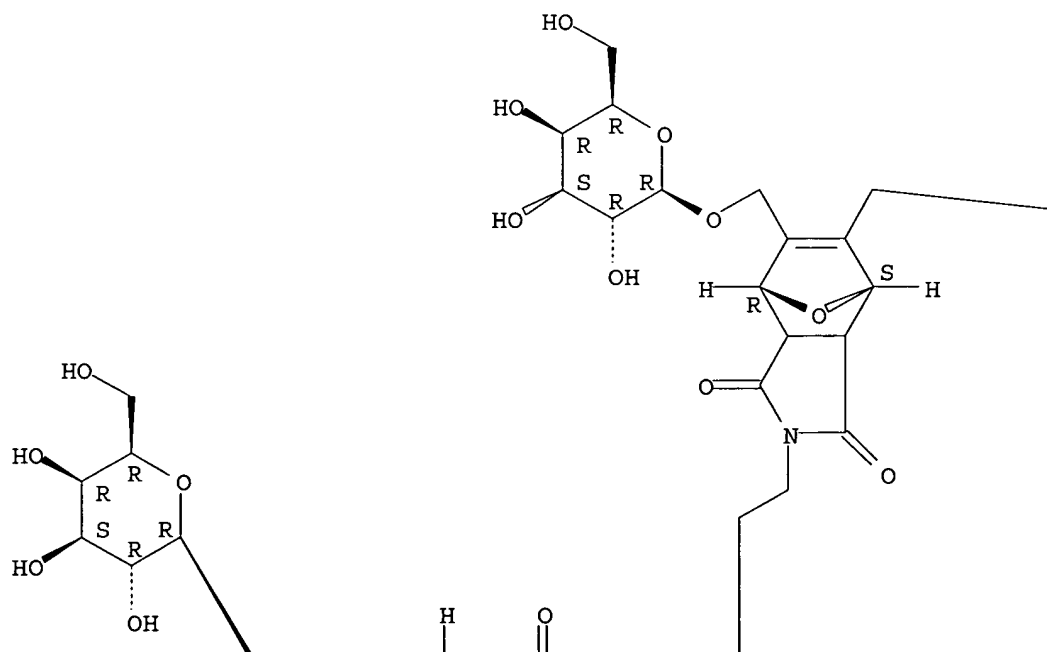


RN 400707-58-6 HCAPLUS

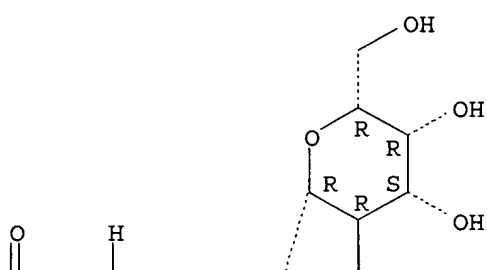
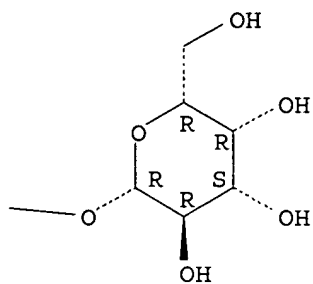
CN 4,7-Epoxy-1H-isoinidole-1,3(2H)-dione, 2,2',2''-(nitrilotri-2,1-ethanediyl)tris[5,6-bis[(β-D-galactopyranosyloxy)methyl]-3a,4,7,7a-tetrahydro-, (4R,4'R,4''R,7S,7'S,7''S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

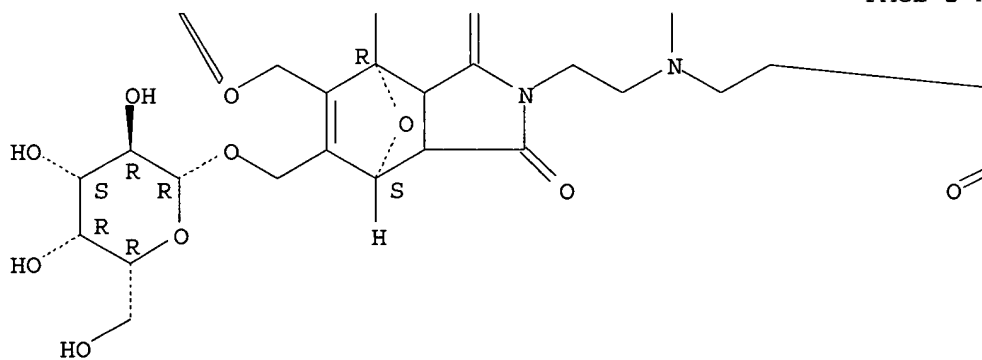
PAGE 1-A



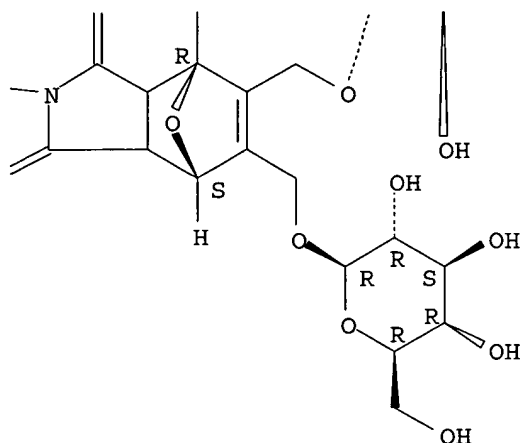
PAGE 1-B



PAGE 2-A



PAGE 2-B

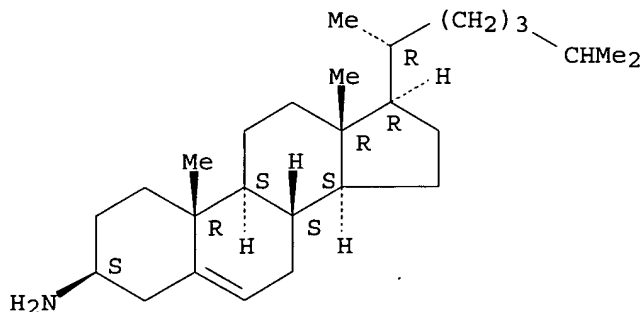


IT 2126-93-4, Cholesterylamine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of water-soluble **saccharide conjugates** and
saccharide mimetics by **Diels-Alder**
 reaction)

RN 2126-93-4 HCAPLUS

CN Cholest-5-en-3-amine, (3 β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 21 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:142562 HCAPLUS

DOCUMENT NUMBER: 136:205384

TITLE: Compositions of compounds **conjugated** to p97 and their methods of use

INVENTOR(S): Gabathuler, Reinhard; Vitalis, Timothy; Kolaitis, Gerrassimos; Brooks, Robert Charles; Karkan, Dalara M.; Arthur, Gavin D.; St. Pierre, John Paul

PATENT ASSIGNEE(S): Synapse Technologies, Inc., Can.

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002013873	A2	20020221	WO 2001-US25787	20010817 <--
WO 2002013873	C2	20030130		
WO 2002013873	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001085020	A5	20020225	AU 2001-85020	20010817 <--
PRIORITY APPLN. INFO.:			US 2000-226242P	P 20000817 <--
			US 2000-226254P	P 20000817 <--
			WO 2001-US25787	W 20010817

ED Entered STN: 22 Feb 2002

AB The present invention provides drug delivery compns. that demonstrate enhanced delivery of therapeutic agents to selected organs, in particular to non-CNS organs. The compns. of the invention are useful for the treatment of diseases associated with these organs. In addition, the compns.

of

the invention reduce the systemic toxicity of the compds. In certain aspects, the pharmaceutical compns. comprise a compound conjugated to p97 (melanotransferrin) or to a fragment thereof, and a pharmaceutically acceptable carrier therefor.

IC ICM A61K047-48

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 2, 8

ST drug delivery melanotransferrin p97 **conjugate**

IT CD antigens

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(CD228, **conjugates**; compns. of compds. **conjugated** to p97 and their methods of use)

IT Diagnosis

(agents; compns. of compds. **conjugated** to p97 and their methods of use)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cardio-; compns. of compds. **conjugated** to p97 and their methods of use)

IT **Drug delivery systems**

(carriers; compns. of compds. **conjugated** to p97 and their methods of use)

IT Amino group

Antibiotics

Antitumor agents

Drug delivery systems

Fungicides

Heart

Kidney, disease

Liver, disease

Lung, disease

Molecular cloning

*Considered
06/20/06
MCE*

Spleen, disease
Sulfhydryl group
pH

(compns. of compds. **conjugated** to p97 and their methods of use)

IT Enzymes, biological studies
Metals, biological studies

Nucleic acids

Radionuclides, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of compds. **conjugated** to p97 and their methods of use)

IT Melanoma-associated antigens

Transferrins

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(melanotransferrins, **conjugates**; compns. of compds. **conjugated** to p97 and their methods of use)

IT **Antibodies and Immunoglobulins**

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)

(monoclonal, anti-p97; compns. of compds. **conjugated** to p97 and their methods of use)

IT Hormones, animal, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**peptide**; compns. of compds. **conjugated** to p97 and their methods of use)

IT 7440-57-5D, **Gold**, p97 complexes 14158-31-7D, Iodine 125, p97 complexes, biological studies

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of compds. **conjugated** to p97 and their methods of use)

IT 127-65-1, Chloramine t

RL: RCT (Reactant); RACT (Reactant or reagent)
(compns. of compds. **conjugated** to p97 and their methods of use)

IT 57-27-2D, Morphine, **conjugates**, biological studies 1397-89-3D,

Amphotericin b, **conjugates** 9004-10-8D, Insulin,

conjugates 15663-27-1D, Cisplatin, **conjugates**

20830-81-3D, Daunorubicin, **conjugates** 23214-92-8D,

Doxorubicin, **conjugates** **25316-40-9D**, Adriamycin,

conjugates 33069-62-4D, Taxol, **conjugates**

51110-01-1D, Somatostatin, **conjugates** 86090-08-6D,

Angiostatin, **conjugates** 114977-28-5D, Taxotere,

conjugates 187888-07-9D, Endostatin, **conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of compds. **conjugated** to p97 and their methods of use)

IT 400705-63-7 400705-64-8 400705-65-9 400705-66-0 400705-67-1
400705-68-2 400705-69-3

RL: PRP (Properties)

(unclaimed sequence; compns. of compds. **conjugated** to p97 and their methods of use)

IT **20830-81-3D**, Daunorubicin, **conjugates**

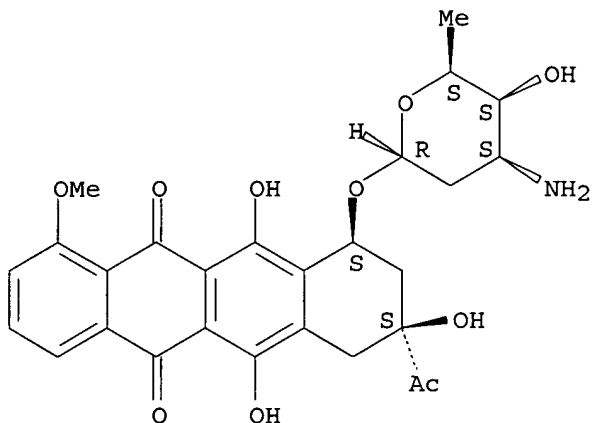
25316-40-9D, Adriamycin, **conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of compds. **conjugated** to p97 and their methods of use)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

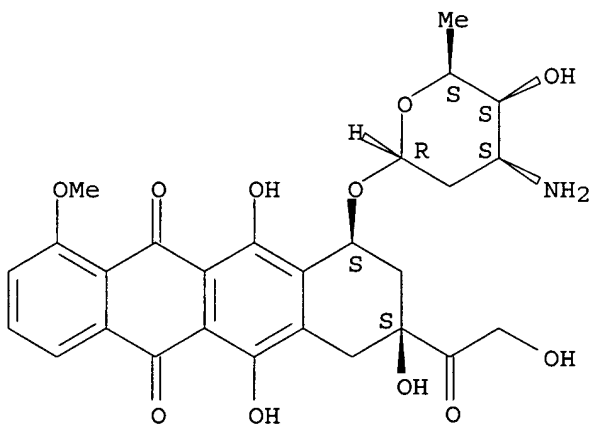
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 22 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123007 HCAPLUS

DOCUMENT NUMBER: 136:183816

TITLE: Combinatorial preparation of bicyclo pyrazoles as kinase inhibitors for treatment of cancer and other proliferative disorders

INVENTOR(S): Fancelli, Daniele; Pittala, Valeria; Varasi, Mario

PATENT ASSIGNEE(S): Pharmacia & Upjohn S.p.A., Italy

SOURCE: PCT Int. Appl., 331 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012242	A2	20020214	WO 2001-EP8639	20010725 <--
WO 2002012242	A3	20020606		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2416527	AA	20020214	CA 2001-2416527	20010725 <--
AU 2001087654	A5	20020218	AU 2001-87654	20010725 <--
BR 2001013176	A	20030617	BR 2001-13176	20010725 <--
EP 1320531	A2	20030625	EP 2001-967223	20010725 <--
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JP 2004505977	T2	20040226	JP 2002-518217	20010725 <--
ZA 2003001813	A	20040622	ZA 2003-1813	20010725 <--
NZ 524475	A	20041126	NZ 2001-524475	20010725 <--
EE 200300054	A	20041215	EE 2003-54	20010725 <--
NO 2003000381	A	20030224	NO 2003-381	20030124 <--
US 2003171357	A1	20030911	US 2003-344480	20030210
PRIORITY APPLN. INFO.:			US 2000-635914	A 20000810 <--
			WO 2001-EP8639	W 20010725

OTHER SOURCE(S): MARPAT 136:183816

ED Entered STN: 15 Feb 2002

AB Title compds. I [wherein R and R1 = independently H or (un)substituted R', COR', CONHR', CONR'R", NHC(:NH)NHR', C(:NH)NHR', SO2R', SO2NHR', or SO2NR'R"; R' and R" = independently H or (un)substituted (cyclo)alkyl, or aryl(alkyl); or R'R" = alkylene chain; Ra, Rb, Rc, and Rd = independently H or (un)substituted alkyl, aryl(alkyl), or CH2OR'; or Ra and Rb and/or Rc and Rd taken together with the C to which they are bonded = (un)substituted cycloalkyl; m and n = independently 0-2, provided that m + n ≤ 2; and pharmaceutically acceptable salts thereof] were prepared, primarily by solid phase combinatorial methods, as protein kinase inhibitors (no data). For example, **cycloadn**. of H2NNH2•HCl to tert-Bu 3-cyano-4-oxo-1-pyrrolidinecarboxylate (preparation given) afforded 3-amino-5-(tert-butoxycarbonyl)-4,6-dihydropyrrolo[3,4-c]pyrazole (31%). The pyrrolopyrazole was dissolved in anhydrous CH2Cl2 and linked to methylisocyanate polystyrene resin to give the polymer-bound urea. The resin-supported urea was partitioned into 96 batches and reacted with acyl chlorides. A second partition of one of the lots, followed by reaction with carboxylic acids, sulfonyl chlorides, and isocyanates and hydrolytic cleavage from the resin, afforded combinatorial libraries of functionalized derivs., including II. I are useful for treating diseases **linked** to disregulated **protein** kinases, such as cancer, cell proliferative disorders, Alzheimer's disease, viral infections, autoimmune disease, and neurodegenerative disorders (no data).

IC ICM C07D487-04

ICS C07D471-04; A61K031-4162; A61K031-437; A61P035-00; A61P025-00;

A61P031-12; C07D487-04; C07D231-00; C07D209-00; C07D471-04;
C07D231-00; C07D221-00

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

IT 194874-12-9P 398491-57-1P 398491-58-2P, tert-Butyl
4-cyano-3-oxo-1-piperidinecarboxylate 398491-59-3P 398491-60-6P
398491-61-7P, 3-Amino-5-(tert-butoxycarbonyl)-6,6-dimethyl-4,6-
dihydropyrrolo[3,4-c]pyrazole 398491-62-8P, 3-Amino-5-(tert-
butoxycarbonyl)-6-benzoxymethyl-4,6-dihydropyrrolo[3,4-c]pyrazole
398491-63-9P 398491-64-0P 398495-65-3P 398495-66-4P
398495-67-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(intermediate; combinatorial preparation of bicyclo pyrazoles as kinase
inhibitors for treatment of cancer and other proliferative disorders)

IT 398491-65-1P 398491-66-2P 398491-67-3P 398491-68-4P 398491-69-5P
398491-70-8P 398491-71-9P 398492-80-3P 398492-81-4P
398495-42-6P

RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); SPN
(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase
inhibitors for treatment of cancer and other proliferative disorders)

IT 398491-72-0P 398491-73-1P 398491-74-2P 398491-75-3P 398491-76-4P
398491-77-5P 398491-78-6P 398491-79-7P 398491-80-0P 398491-81-1P
398491-82-2P 398491-83-3P 398491-84-4P 398491-85-5P 398491-86-6P
398491-87-7P 398491-88-8P 398491-89-9P 398491-90-2P 398491-91-3P
398491-92-4P 398491-93-5P 398491-94-6P 398491-95-7P 398491-96-8P
398491-97-9P 398491-98-0P 398491-99-1P 398492-00-7P 398492-01-8P
398492-02-9P 398492-03-0P 398492-04-1P 398492-05-2P 398492-06-3P
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398493-26-0P 398493-27-1P 398493-28-2P 398493-29-3P 398493-30-6P
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398493-41-9P 398493-42-0P 398493-43-1P 398493-44-2P 398493-45-3P
398493-46-4P 398493-47-5P 398493-48-6P 398493-49-7P 398493-50-0P
398493-51-1P 398493-52-2P 398493-53-3P 398493-54-4P 398493-55-5P
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398493-80-6P 398493-81-7P 398493-82-8P 398493-83-9P 398493-84-0P
398493-85-1P 398493-86-2P 398493-87-3P 398493-88-4P
398493-89-5P 398493-90-8P 398493-91-9P
398493-92-0P 398493-93-1P 398493-94-2P
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398493-98-6P 398493-99-7P 398494-00-3P
398494-01-4P 398494-02-5P 398494-03-6P
398494-04-7P 398494-05-8P 398494-06-9P
398494-07-0P 398494-08-1P

RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); THU
(Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study);
PREP (Preparation); USES (Uses)

(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase
inhibitors for treatment of cancer and other proliferative disorders)

IT 398494-09-2P 398494-10-5P 398494-11-6P
398494-12-7P 398494-13-8P 398494-14-9P
398494-15-0P 398494-16-1P 398494-17-2P
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398494-33-2P 398494-34-3P 398494-35-4P
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398494-39-8P 398494-40-1P 398494-41-2P
398494-42-3P 398494-43-4P 398494-44-5P
398494-45-6P 398494-46-7P 398494-47-8P
398494-48-9P 398494-49-0P 398494-50-3P
398494-51-4P 398494-52-5P 398494-53-6P,
N-(5-Acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-
fluorobenzamide 398494-54-7P 398494-55-8P
398494-56-9P 398494-57-0P 398494-58-1P
398494-59-2P 398494-60-5P 398494-61-6P
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398495-75-5P 398495-77-7P 398495-79-9P 398495-80-2P 398495-81-3P
398495-82-4P 398495-83-5P 398495-84-6P 398495-85-7P 398495-86-8P
398495-88-0P 398495-89-1P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-phenoxybenzamide 398495-91-5P 398495-92-6P
398495-93-7P 398495-94-8P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopropanecarboxamide 398495-95-9P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)isobutyramide
398495-96-0P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopentanecarboxamide 398495-97-1P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)benzamide 398495-98-2P 398495-99-3P
398496-00-9P 398496-01-0P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methyl-2-furoic amide 398496-02-1P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-carboxamide 398496-03-2P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-carboxamide 398496-04-3P 398496-05-4P
398496-06-5P 398496-07-6P 398496-08-7P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-fluorobenzamide 398496-09-8P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorobenzamide
398496-10-1P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorobenzamide 398496-11-2P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-acetamide 398496-12-3P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-acetamide 398496-13-4P
398496-14-5P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-cyanobenzamide 398496-15-6P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-cyanobenzamide 398496-16-7P 398496-17-8P
398496-18-9P 398496-20-3P 398496-21-4P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-phenylpropionamide 398496-22-5P
398496-23-6P 398496-24-7P 398496-25-8P 398496-26-9P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methoxybenzamide
398496-27-0P 398496-28-1P 398496-29-2P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-fluorophenylacetamide 398496-30-5P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorophenylacetamide 398496-31-6P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorophenylacetamide 398496-32-7P
398496-33-8P 398496-34-9P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thienyl)propanoic amide 398496-35-0P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-chlorobenzamide
398496-36-1P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-chlorobenzamide 398496-37-2P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-chlorobenzamide 398496-38-3P 398496-39-4P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-acetylbenzamide
398496-40-7P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-acetylbenzamide 398496-41-8P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthoic amide 398496-42-9P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthoic amide 398496-43-0P
398496-44-1P 398496-45-2P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,5-dimethoxybenzamide 398496-46-3P,
N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,6-dimethoxybenzamide 398496-47-4P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,4-dimethoxybenzamide 398496-48-5P,

N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,5-dimethoxybenzamide 398496-49-6P 398496-50-9P 398496-51-0P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-phenylbenzamide 398496-52-1P, N-(5-Benzyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)acetamide 398496-53-2P, N-(5-Benzyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopropanecarboxamide
RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase inhibitors for treatment of cancer and other proliferative disorders)

IT 398504-40-0P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,4-dimethoxybenzamide 398504-41-1P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,5-dimethoxybenzamide 398504-43-3P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thenoyl)propionamide 398504-44-4P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthylacetamide 398504-45-5P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthylacetamide 398504-47-7P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-phenylbenzamide 398504-49-9P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)acetamide 398504-51-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopropanecarboxamide 398504-53-5P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)isobutyramide 398504-55-7P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopentanecarboxamide 398504-57-9P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)benzamide 398504-59-1P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)picolinic amide 398504-61-5P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)nicotinic amide 398504-63-7P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)isonicotinic amide 398504-65-9P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methyl-2-furoic amide 398504-67-1P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-carboxamide 398504-69-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-carboxamide 398504-70-6P 398504-73-9P 398504-74-0P 398504-76-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)phenylacetamide 398504-78-4P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)salicylic amide 398504-80-8P 398504-82-0P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorobenzamide 398504-84-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorobenzamide 398504-86-4P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-acetamide 398504-88-6P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-acetamide 398504-90-0P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)phenylpropionic amide 398504-92-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-cyanobenzamide 398504-94-4P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-cyanobenzamide 398504-96-6P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)trans-cinnamic amide 398504-98-8P 398505-00-5P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(3-pyridyl)acrylic amide 398505-01-6P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(4-pyridyl)acrylic amide 398505-03-8P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-phenylpropionamide 398505-05-0P 398505-11-8P 398505-13-0P 398505-15-2P 398505-17-4P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methoxybenzamide 398505-19-6P 398505-21-0P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)phenoxyacetamide 398505-23-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-

fluorophenylacetamide 398505-25-4P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorophenylacetamide 398505-27-6P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorophenylacetamide 398505-29-8P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thienyl)acrylic amide 398505-31-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(3-thienyl)acrylic amide 398505-32-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thienyl)propanoic amide 398505-34-5P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-chlorobenzamide 398505-36-7P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-chlorobenzamide 398505-38-9P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-chlorobenzamide 398505-40-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-piperidinepropionamide 398505-42-5P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-acetylbenzamide 398505-44-7P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-acetylbenzamide 398505-45-8P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthoic amide 398505-47-0P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthoic amide 398505-49-2P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-benzoylpropionamide 398505-51-6P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-(acetylamino)benzamide 398505-53-8P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,5-dimethoxybenzamide 398505-55-0P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,6-dimethoxybenzamide 398505-56-1P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,4-dimethoxybenzamide 398505-58-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,5-dimethoxybenzamide 398505-60-7P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thenoyl)propionamide 398505-62-9P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthylacetamide 398505-64-1P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthylacetamide 398505-66-3P, N-(5-Aminosulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-phenylbenzamide 398505-68-5P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)acetamide 398505-70-9P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopropanecarboxamide 398505-72-1P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)isobutyramide 398505-74-3P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopentanecarboxamide 398505-76-5P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)benzamide 398505-78-7P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)picolinic amide 398505-80-1P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)nicotinic amide 398505-82-3P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)isonicotinic amide 398505-84-5P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methyl-2-furoic amide 398505-86-7P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-carboxamide 398505-87-8P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-carboxamide 398505-88-9P 398505-89-0P 398505-90-3P 398505-91-4P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)salicylic amide 398505-92-5P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-fluorobenzamide 398505-93-6P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorobenzamide 398505-94-7P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorobenzamide 398505-95-8P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-acetamide 398505-96-9P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-acetamide 398505-97-0P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-

c]pyrazol-3-yl)phenylpropionic amide 398505-98-1P 398505-99-2P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-
cyanobenzamide 398506-00-8P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)trans-cinnamic amide 398506-01-9P
398506-02-0P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-3-(3-pyridyl)acrylic amide 398506-03-1P, N-(5-Toluensulfonyl-4,6-
dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(4-pyridyl)acrylic amide
398506-04-2P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-2-phenylpropionamide 398506-05-3P 398506-06-4P 398506-07-5P
398506-08-6P 398506-09-7P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-methoxybenzamide 398506-10-0P
398506-11-1P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)phenoxyacetamide 398506-12-2P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-2-fluorophenylacetamide 398506-13-3P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-
fluorophenylacetamide 398506-14-4P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-4-fluorophenylacetamide 398506-15-5P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-
thienyl)acrylic amide 398506-16-6P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-(3-thienyl)acrylic amide 398506-17-7P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-
thienyl)propanoic amide 398506-18-8P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-2-chlorobenzamide 398506-19-9P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-
chlorobenzamide 398506-20-2P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-4-chlorobenzamide 398506-21-3P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-
piperidinepropionamide 398506-22-4P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-2-acetylbenzamide 398506-23-5P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-
acetylbenzamide 398506-24-6P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthoic amide 398506-25-7P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthoic
amide 398506-26-8P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-
c]pyrazol-3-yl)-3-benzoylpropionamide 398506-27-9P, N-(5-Toluensulfonyl-
4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-(acetylamino)benzamide
398506-28-0P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-2,5-dimethoxybenzamide 398506-29-1P, N-(5-Toluensulfonyl-4,6-dihydro-
1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,6-dimethoxybenzamide 398506-30-4P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,4-
dimethoxybenzamide 398506-31-5P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3,5-dimethoxybenzamide 398506-32-6P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-
thenoyl)propionamide 398506-33-7P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-2-naphthylacetamide 398506-34-8P,
N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-
naphthylacetamide 398506-35-9P, N-(5-Toluensulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-4-phenylbenzamide 398506-36-0P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)acetamide
398506-37-1P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)cyclopropanecarboxamide 398506-38-2P, N-(5-Benzylsulfonyl-4,6-dihydro-
1H-pyrrolo[3,4-c]pyrazol-3-yl)isobutyramide 398506-39-3P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)cyclopentanecarboxamide 398506-40-6P, N-(5-Benzylsulfonyl-4,6-dihydro-
1H-pyrrolo[3,4-c]pyrazol-3-yl)benzamide 398506-41-7P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)picolinic
amide 398506-42-8P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-
c]pyrazol-3-yl)nicotinic amide 398506-43-9P 398506-44-0P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-methyl-2-
furoic amide 398506-45-1P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-

pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-carboxamide 398506-46-2P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-
carboxamide 398506-47-3P 398506-48-4P 398506-49-5P 398506-50-8P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)phenylacetamide 398506-51-9P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)salicylic amide 398506-52-0P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
fluorobenzamide 398506-53-1P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorobenzamide 398506-54-2P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-
fluorobenzamide 398506-55-3P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)thiophene-2-acetamide 398506-56-4P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)thiophene-3-
acetamide 398506-57-5P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-
c]pyrazol-3-yl)phenylpropionic amide 398506-58-6P, N-(5-Benzylsulfonyl-
4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-cyanobenzamide
398506-59-7P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-4-cyanobenzamide 398506-60-0P 398506-61-1P 398506-62-2P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(3-
pyridyl)acrylic amide 398506-63-3P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-(4-pyridyl)acrylic amide 398506-64-4P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
phenylpropionamide 398506-65-5P 398506-66-6P 398506-67-7P
398506-68-8P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-3-methoxybenzamide 398506-69-9P 398506-70-2P, N-(5-Benzylsulfonyl-
4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)phenoxyacetamide 398506-71-3P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
fluorophenylacetamide 398506-72-4P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-fluorophenylacetamide 398506-73-5P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-
fluorophenylacetamide 398506-74-6P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thienyl)acrylic amide 398506-75-7P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-(3-
thienyl)acrylic amide 398506-76-8P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thienyl)propanoic amide 398506-77-9P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
chlorobenzamide 398506-78-0P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-chlorobenzamide 398506-79-1P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-
chlorobenzamide 398506-80-4P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-1-piperidinepropionamide 398506-81-5P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
acetylbenzamide 398506-82-6P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-4-acetylbenzamide 398506-83-7P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthoic
amide 398506-84-8P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-
c]pyrazol-3-yl)-2-naphthoic amide 398506-85-9P, N-(5-Benzylsulfonyl-4,6-
dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3-benzoylpropionamide
398506-86-0P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-4-(acetylamino)benzamide 398506-87-1P, N-(5-Benzylsulfonyl-4,6-
dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2,5-dimethoxybenzamide
398506-88-2P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-
yl)-2,6-dimethoxybenzamide 398506-89-3P, N-(5-Benzylsulfonyl-4,6-dihydro-
1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,4-dimethoxybenzamide 398506-90-6P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-3,5-
dimethoxybenzamide 398506-91-7P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-3-(2-thenoyl)propionamide 398506-92-8P,
N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-2-
naphthylacetamide 398506-93-9P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-
pyrrolo[3,4-c]pyrazol-3-yl)-1-naphthylacetamide 398506-94-0P,

N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-4-phenylbenzamide 398506-95-1P, N-(5-Acetyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398506-96-2P, N-(5-Benzyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398506-97-3P, N-(5-Phenyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398506-98-4P, N-(5-Aminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398506-99-5P, N-(5-Ethylaminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398507-00-1P, N-(5-Methylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398507-01-2P, N-(5-Benzylsulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398507-02-3P, N-(5-Toluensulfonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398507-03-4P, N-(5-Benzylaminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea 398507-04-5P, N-(5-Phenylaminocarbonyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-N'-(4-chlorobenzyl)urea **398507-05-6P**, N-[5-(2-Furoyl)-4,5,6,7-tetrahydro-1H-pyridine[4,3-c]pyrazol-3-yl]-2-(2-naphthyl)propanamide 398507-06-7P 398507-07-8P 398507-08-9P 398507-09-0P 398507-10-3P 398507-11-4P 398507-12-5P 398507-13-6P, N-[5-(2-Thienylacetyl)-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl](4-tert-butyl)benzamide 398507-14-7P, N-[5-(2-Thienylacetyl)-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl]phenylacetamide 398507-15-8P 398507-16-9P 398507-17-0P 398507-18-1P, N-[5-(4-Fluorobenzoyl)-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl](4-tert-butyl)benzamide 398507-19-2P, N-[5-(4-Fluorobenzoyl)-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl]cyclopropanecarboxamide 398507-20-5P, N-[5-(4-Fluorobenzoyl)-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl]phenylacetamide 398507-21-6P 398507-22-7P, N-(5-Acetyl-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-(4-tert-butyl)benzamide 398507-23-8P, N-(5-Acetyl-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)-(4-tert-butyl)benzamide 398507-24-9P, N-(5-Acetyl-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)cyclopropanecarboxamide 398507-25-0P, N-(5-Acetyl-6,6-dimethyl-4,6-dihydro-1H-pyrrolo[3,4-c]pyrazol-3-yl)phenylacetamide 398507-26-1P 398507-27-2P 398507-28-3P 398507-29-4P 398507-30-7P **398507-31-8P**, N-(6-Acetyl-4,5,6,7-tetrahydro-1H-pyridine[3,4-c]pyrazol-3-yl)-4-tert-butylbenzamide **398507-32-9P**, N-(6-Phenylsulfonyl-4,5,6,7-tetrahydro-1H-pyridine[3,4-c]pyrazol-3-yl)-4-tert-butylbenzamide 398507-33-0P 398509-35-8P
 RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase inhibitors for treatment of cancer and other proliferative disorders)

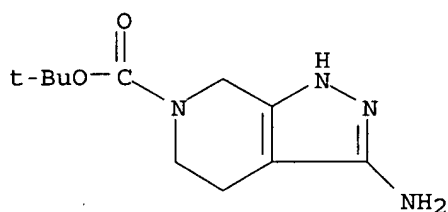
IT **398491-63-9P 398491-64-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; combinatorial preparation of bicyclo pyrazoles as kinase inhibitors for treatment of cancer and other proliferative disorders)

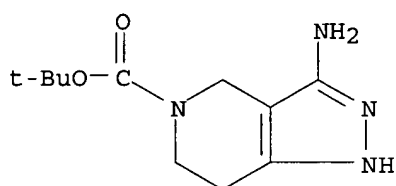
RN 398491-63-9 HCAPLUS

CN 6H-Pyrazolo[3,4-c]pyridine-6-carboxylic acid, 3-amino-1,4,5,7-tetrahydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 398491-64-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxylic acid, 3-amino-1,4,6,7-tetrahydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

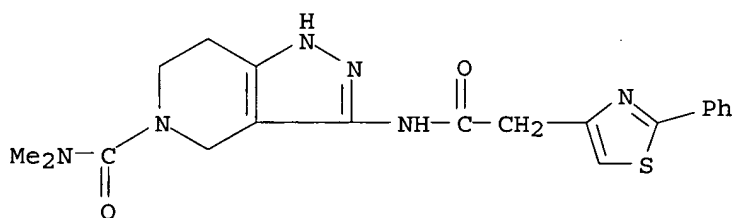


IT 398495-42-6P

RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)
(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase inhibitors for treatment of cancer and other proliferative disorders)

RN 398495-42-6 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N,N-dimethyl-3-[[2-phenyl-4-thiazolyl)acetyl]amino]- (9CI) (CA INDEX NAME)



IT 398493-67-9P 398493-89-5P 398493-90-8P
398493-91-9P 398493-92-0P 398493-93-1P
398493-94-2P 398493-95-3P 398493-96-4P
398493-97-5P 398493-98-6P 398493-99-7P
398494-00-3P 398494-01-4P 398494-02-5P
398494-03-6P 398494-04-7P 398494-05-8P
398494-06-9P 398494-07-0P 398494-08-1P
398494-09-2P 398494-10-5P 398494-11-6P
398494-12-7P 398494-13-8P 398494-14-9P
398494-15-0P 398494-16-1P 398494-17-2P
398494-18-3P 398494-19-4P 398494-20-7P
398494-21-8P 398494-22-9P 398494-23-0P
398494-24-1P 398494-25-2P 398494-26-3P
398494-27-4P 398494-28-5P 398494-29-6P

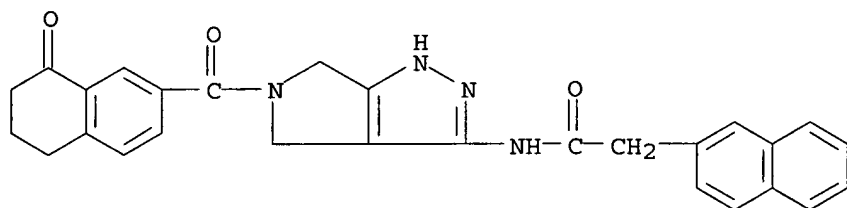
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398494-39-8P 398494-40-1P 398494-41-2P
398494-42-3P 398494-43-4P 398494-44-5P
398494-45-6P 398494-46-7P 398494-47-8P
398494-48-9P 398494-49-0P 398494-50-3P
398494-51-4P 398494-52-5P 398494-53-6P,
N-(5-Acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-
fluorobenzamide 398494-54-7P 398494-55-8P

398494-56-9P 398494-57-0P 398494-58-1P
398494-59-2P 398494-60-5P 398494-61-6P
398494-62-7P 398494-63-8P 398494-64-9P
398494-65-0P 398494-66-1P 398494-67-2P
398494-68-3P 398494-69-4P 398494-70-7P
398494-71-8P 398494-72-9P 398494-73-0P
398494-74-1P 398494-75-2P 398494-76-3P
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398494-80-9P 398494-81-0P 398494-82-1P
398494-83-2P 398494-84-3P 398494-85-4P
398494-86-5P 398494-87-6P 398494-89-8P
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398495-25-5P 398495-26-6P 398495-27-7P
398495-28-8P 398495-29-9P 398495-30-2P
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398495-58-4P 398495-59-5P 398495-60-8P
398495-61-9P 398495-62-0P 398495-63-1P
398507-05-6P, N-[5-(2-Furoyl)-4,5,6,7-tetrahydro-1H-pyridine[4,3-
c]pyrazol-3-yl]-2-(2-naphthyl)propanamide 398507-31-8P,
N-(6-Acetyl-4,5,6,7-tetrahydro-1H-pyridine[3,4-c]pyrazol-3-yl)-4-tert-
butylbenzamide 398507-32-9P, N-(6-Phenylsulfonyl-4,5,6,7-
tetrahydro-1H-pyridine[3,4-c]pyrazol-3-yl)-4-tert-butylbenzamide
RL: CPN (Combinatorial preparation); PAC (Pharmacological activity); THU
(Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study);
PREP (Preparation); USES (Uses)

(kinase inhibitor; combinatorial preparation of bicyclo pyrazoles as kinase
inhibitors for treatment of cancer and other proliferative disorders)

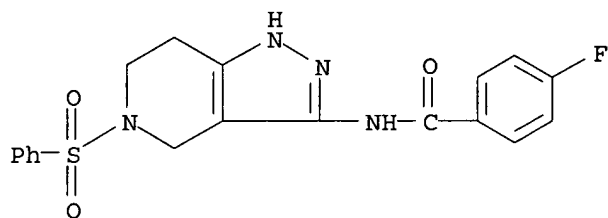
RN 398493-67-9 HCAPLUS

CN 2-Naphthaleneacetamide, N-[1,4,5,6-tetrahydro-5-[(5,6,7,8-tetrahydro-8-oxo-
2-naphthalenyl)carbonyl]pyrrolo[3,4-c]pyrazol-3-yl]- (9CI) (CA INDEX
NAME)



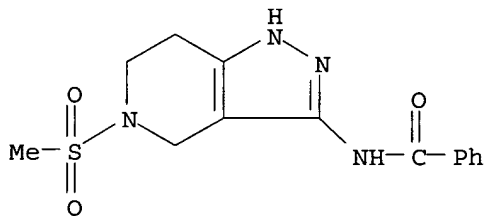
RN 398493-89-5 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



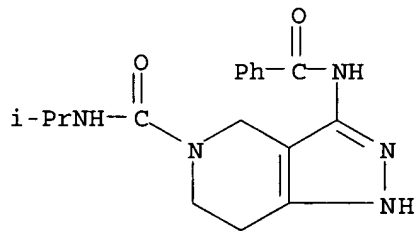
RN 398493-90-8 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



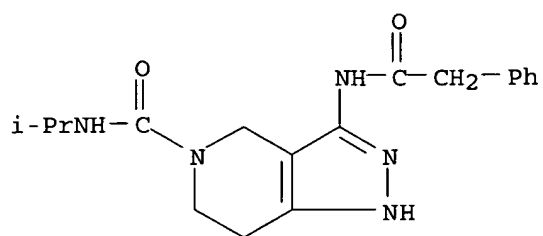
RN 398493-91-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-(benzoylamino)-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



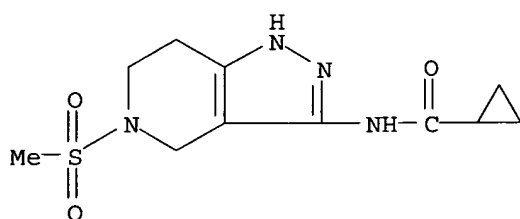
RN 398493-92-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[(phenylacetyl)amino]- (9CI) (CA INDEX NAME)



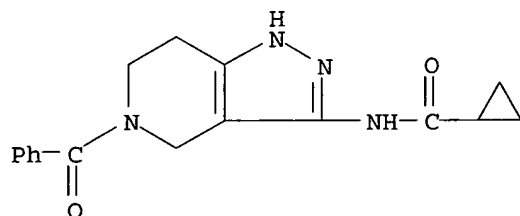
RN 398493-93-1 HCAPLUS

CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-(methanesulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



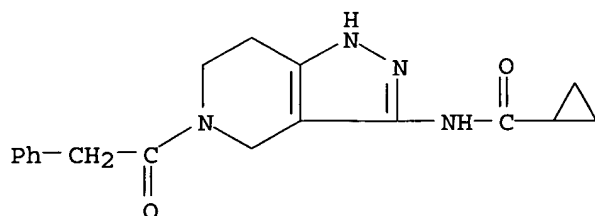
RN 398493-94-2 HCAPLUS

CN Cyclopropanecarboxamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



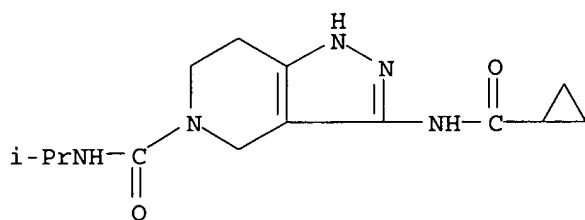
RN 398493-95-3 HCAPLUS

CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



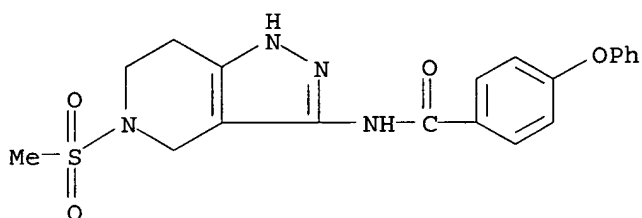
RN 398493-96-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(cyclopropylcarbonyl)amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



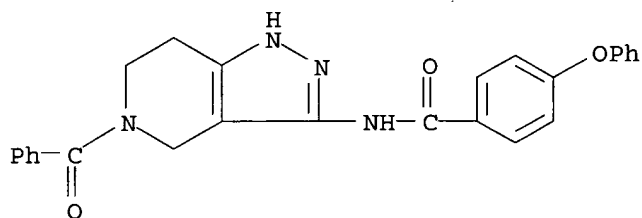
RN 398493-97-5 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



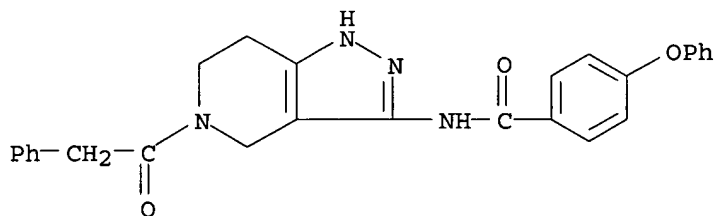
RN 398493-98-6 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-4-phenoxy- (9CI) (CA INDEX NAME)



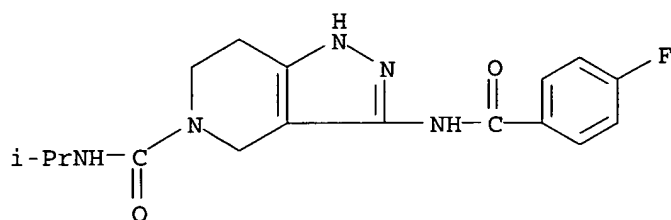
RN 398493-99-7 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



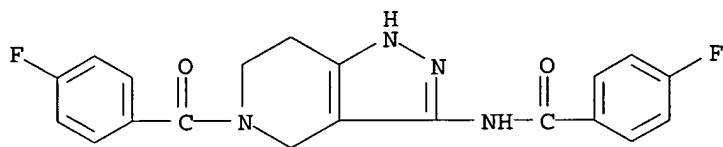
RN 398494-00-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(4-fluorobenzoyl)amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



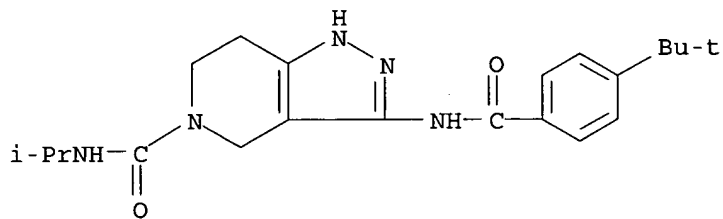
RN 398494-01-4 HCAPLUS

CN Benzamide, 4-fluoro-N-[5-(4-fluorobenzoyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



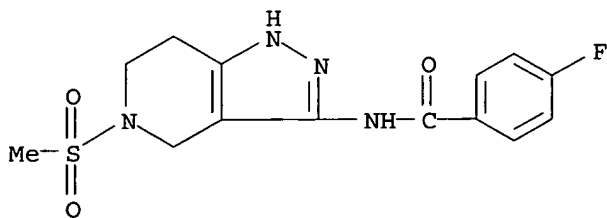
RN 398494-02-5 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[[4-(1,1-dimethylethyl)benzoyl]amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



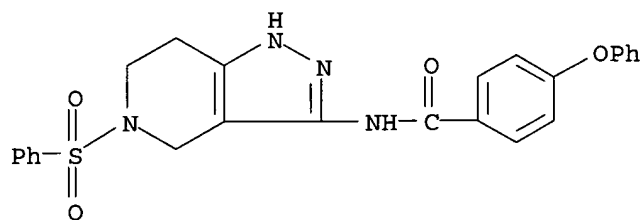
RN 398494-03-6 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



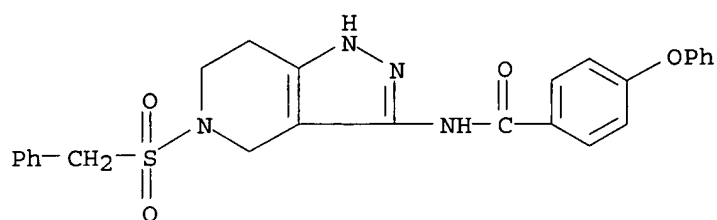
RN 398494-04-7 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



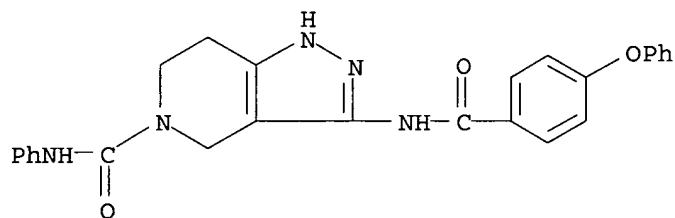
RN 398494-05-8 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



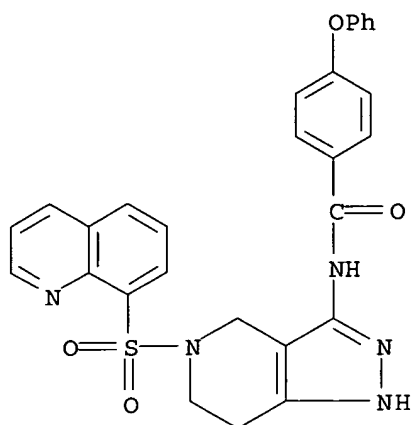
RN 398494-06-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(4-phenoxybenzoyl)amino]-N-phenyl- (9CI) (CA INDEX NAME)



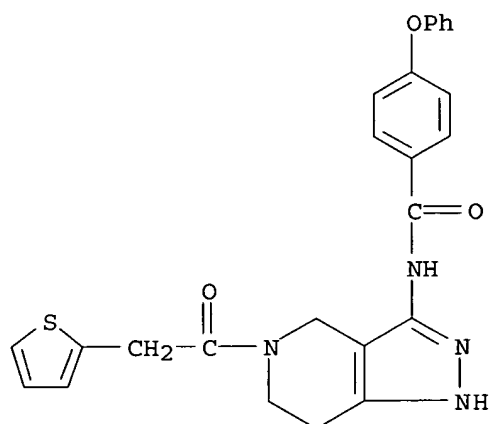
RN 398494-07-0 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



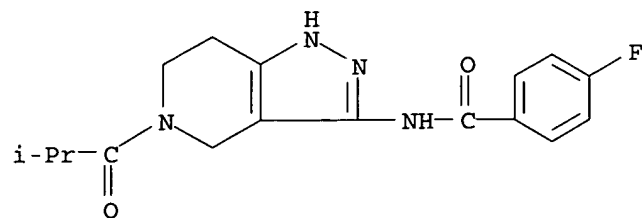
RN 398494-08-1 HCAPLUS

CN Benzamide, 4-phenoxy-N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



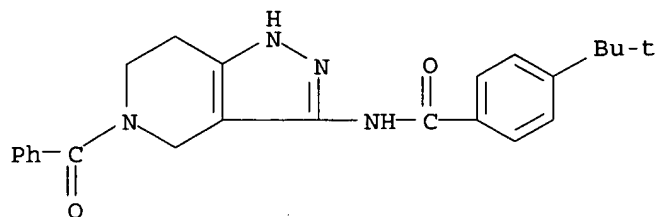
RN 398494-09-2 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-(2-methyl-1-oxopropyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



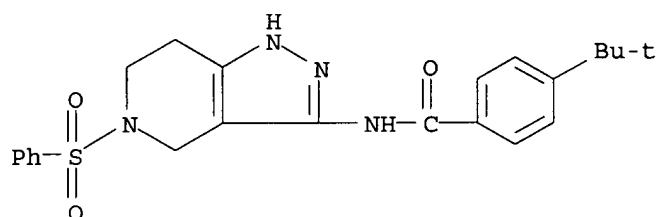
RN 398494-10-5 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-4-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



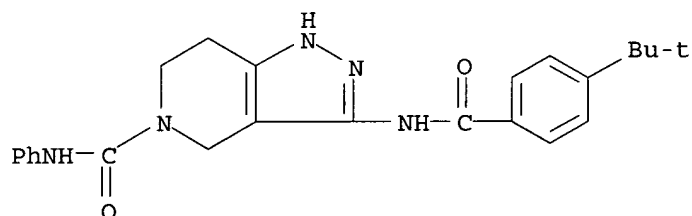
RN 398494-11-6 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



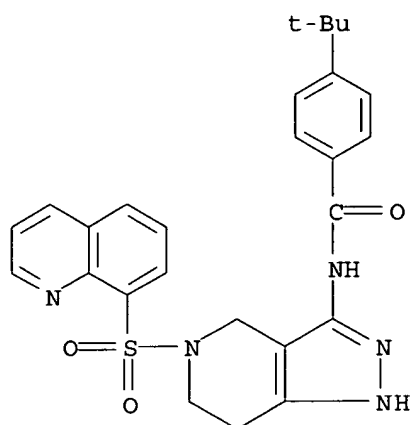
RN 398494-12-7 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[[4-(1,1-dimethylethyl)benzoyl]amino]-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



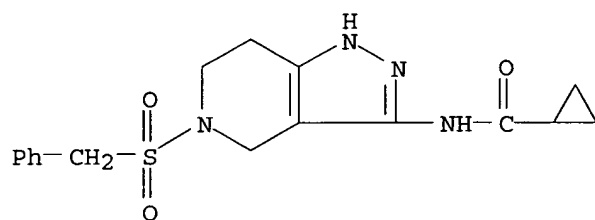
RN 398494-13-8 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



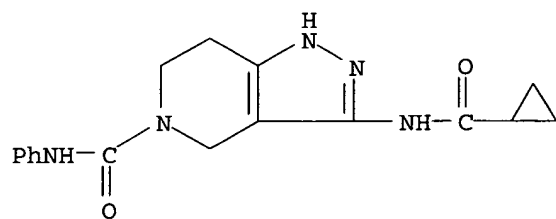
RN 398494-14-9 HCAPLUS

CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



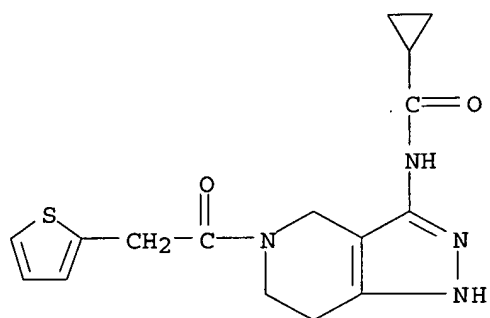
RN 398494-15-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(cyclopropylcarbonyl)amino]-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



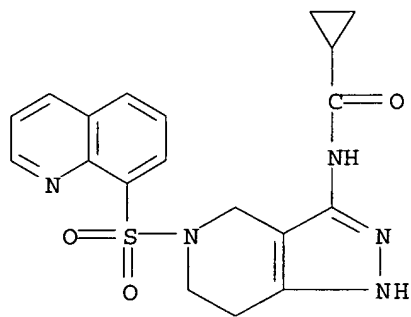
RN 398494-16-1 HCAPLUS

CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



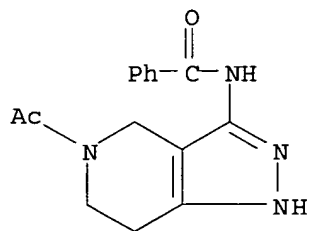
RN 398494-17-2 HCAPLUS

CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



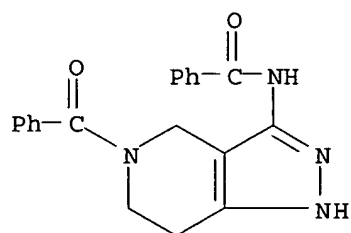
RN 398494-18-3 HCAPLUS

CN Benzamide, N-(5-acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



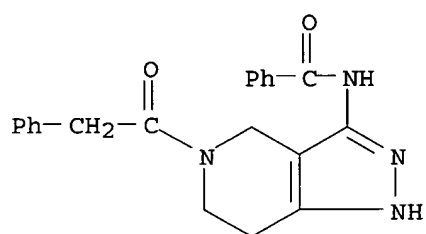
RN 398494-19-4 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



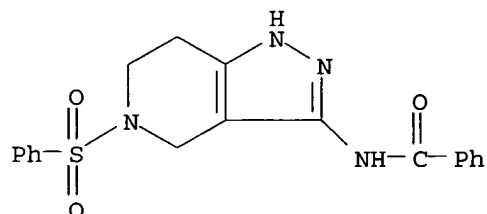
RN 398494-20-7 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



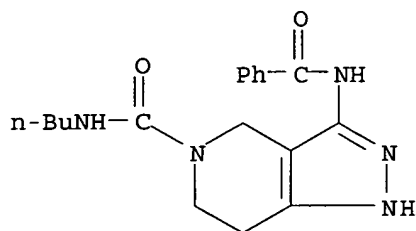
RN 398494-21-8 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



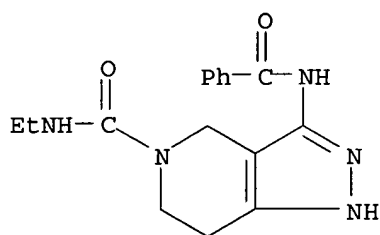
RN 398494-22-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-(benzoylamino)-N-butyl-1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



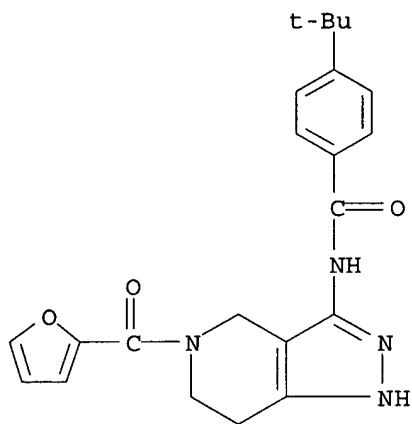
RN 398494-23-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-(benzoylamino)-N-ethyl-1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



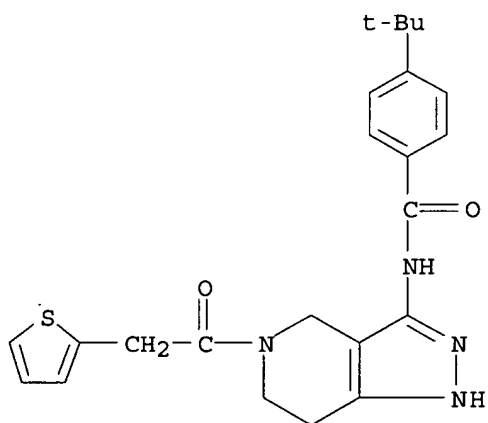
RN 398494-24-1 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[5-(2-furanylcarbonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



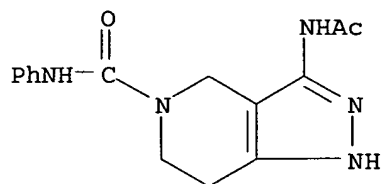
RN 398494-25-2 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



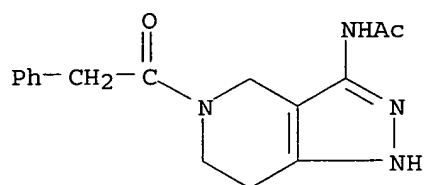
RN 398494-26-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-(acetilamino)-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



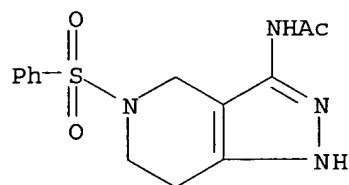
RN 398494-27-4 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



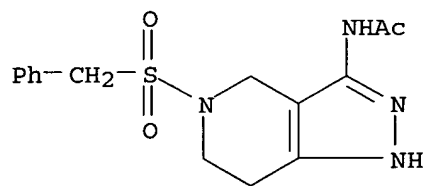
RN 398494-28-5 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



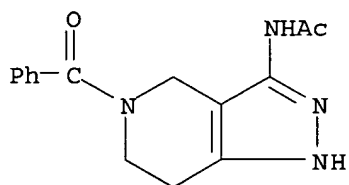
RN 398494-29-6 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



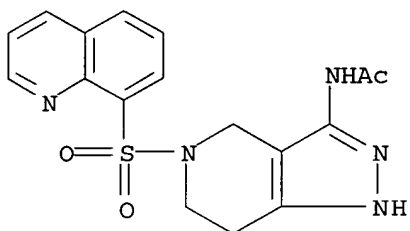
RN 398494-30-9 HCAPLUS

CN Acetamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



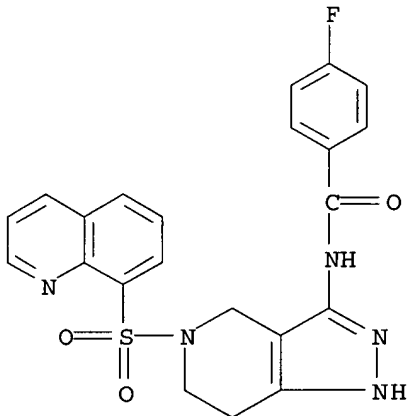
RN 398494-31-0 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



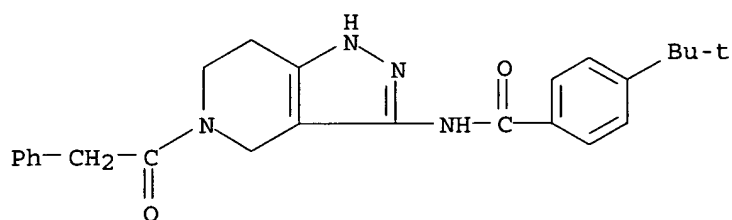
RN 398494-32-1 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



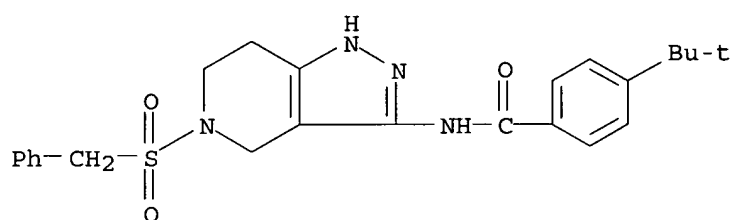
RN 398494-33-2 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



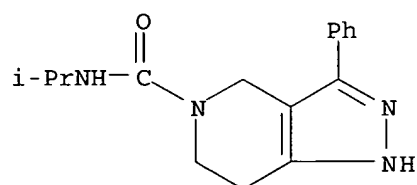
RN 398494-34-3 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl- (9CI) (CA INDEX NAME)



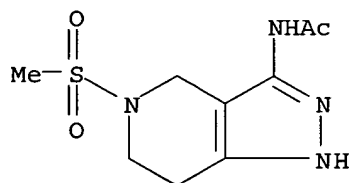
RN 398494-35-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-phenyl- (9CI) (CA INDEX NAME)



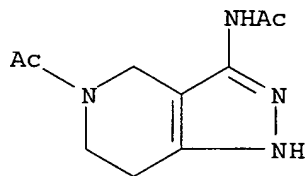
RN 398494-36-5 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



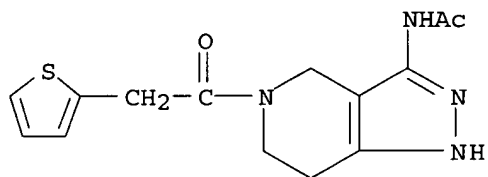
RN 398494-37-6 HCAPLUS

CN Acetamide, N-(5-acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



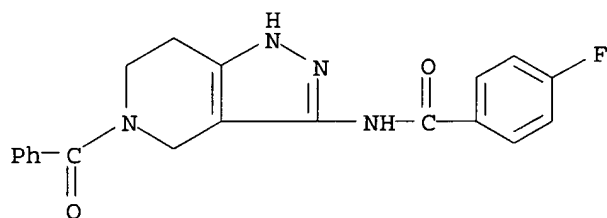
RN 398494-38-7 HCAPLUS

CN Acetamide, N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



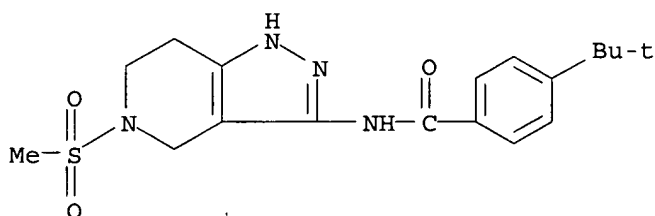
RN 398494-39-8 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-4-fluoro- (9CI) (CA INDEX NAME)



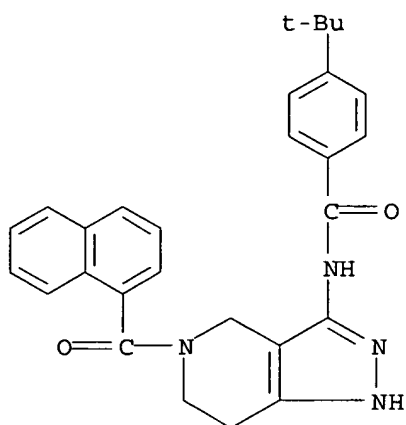
RN 398494-40-1 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(methanesulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



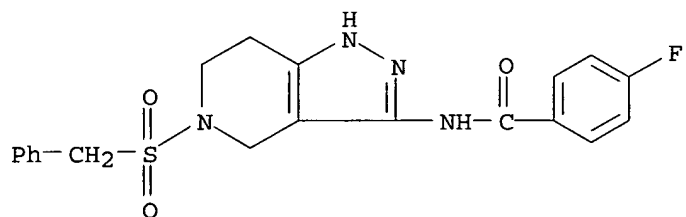
RN 398494-41-2 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(1-naphthalenylcarbonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



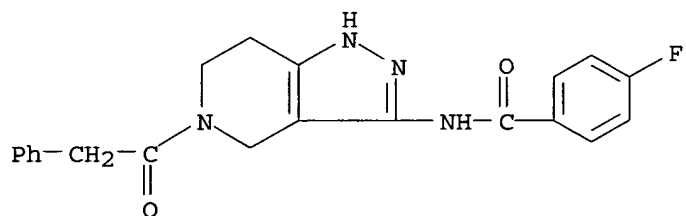
RN 398494-42-3 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



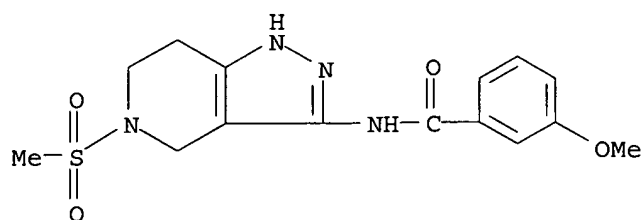
RN 398494-43-4 HCAPLUS

CN Benzamide, 4-fluoro-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



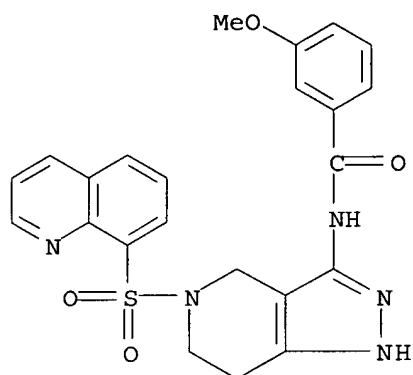
RN 398494-44-5 HCAPLUS

CN Benzamide, 3-methoxy-N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



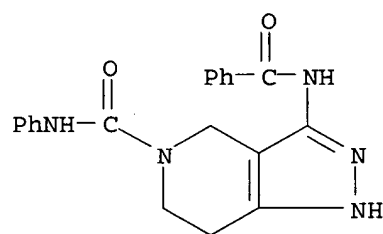
RN 398494-45-6 HCAPLUS

CN Benzamide, 3-methoxy-N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



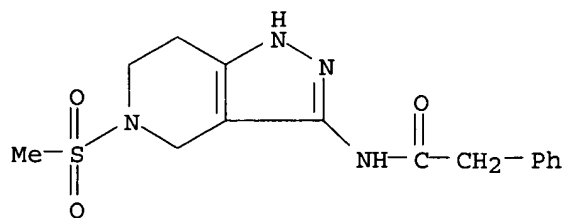
RN 398494-46-7 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-(benzoylamino)-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



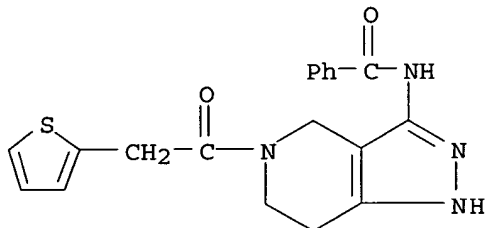
RN 398494-47-8 HCAPLUS

CN Benzeneacetamide, N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



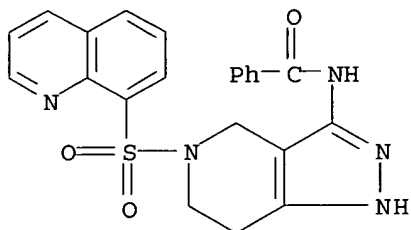
RN 398494-48-9 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



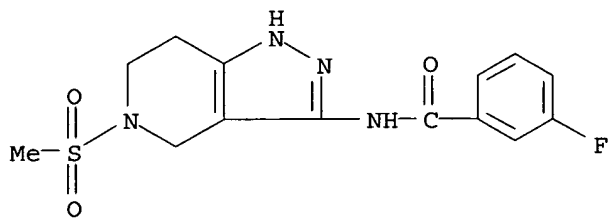
RN 398494-49-0 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



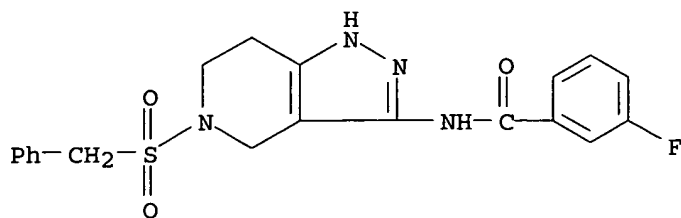
RN 398494-50-3 HCAPLUS

CN Benzamide, 3-fluoro-N-[4,5,6,7-tetrahydro-5-(methylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



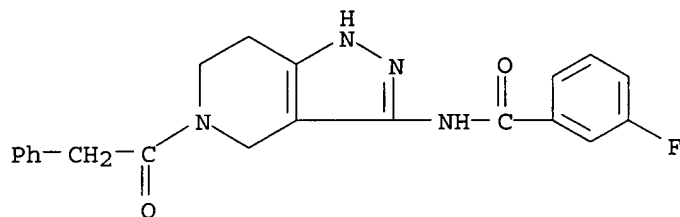
RN 398494-51-4 HCAPLUS

CN Benzamide, 3-fluoro-N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



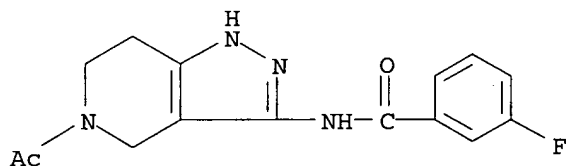
RN 398494-52-5 HCAPLUS

CN Benzamide, 3-fluoro-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



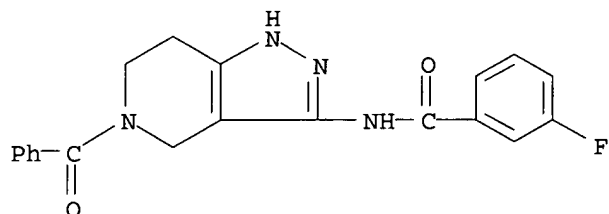
RN 398494-53-6 HCAPLUS

CN Benzamide, N-(5-acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-fluoro- (9CI) (CA INDEX NAME)



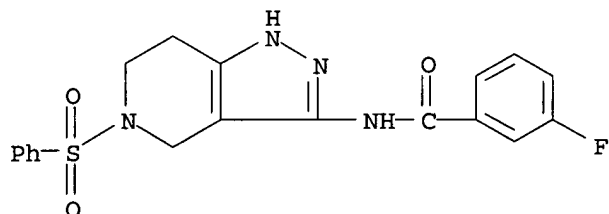
RN 398494-54-7 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-fluoro- (9CI) (CA INDEX NAME)



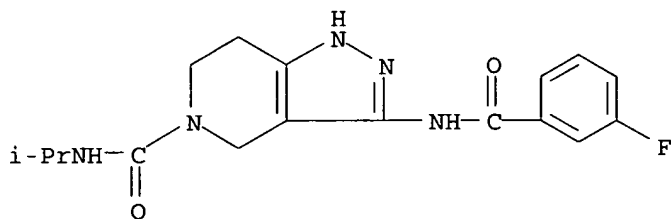
RN 398494-55-8 HCAPLUS

CN Benzamide, 3-fluoro-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



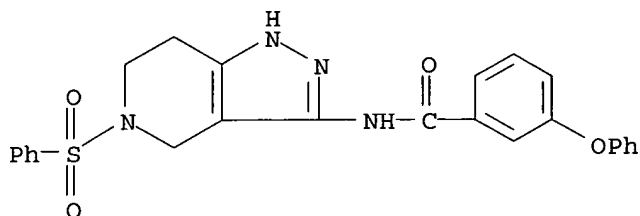
RN 398494-56-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(3-fluorobenzoyl)amino]-
1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



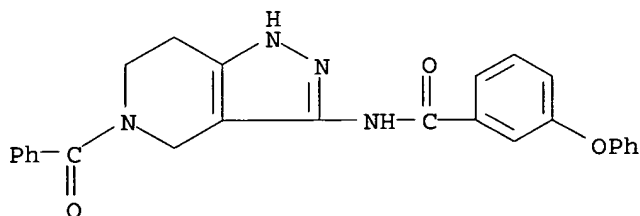
RN 398494-57-0 HCAPLUS

CN Benzamide, 3-phenoxy-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



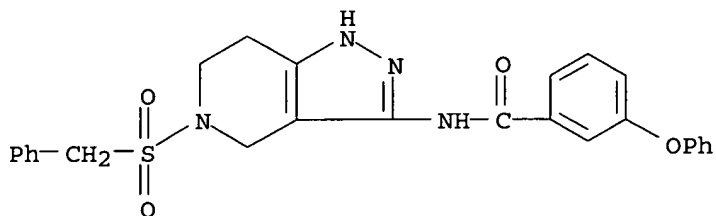
RN 398494-58-1 HCAPLUS

CN Benzamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-phenoxy- (9CI) (CA INDEX NAME)



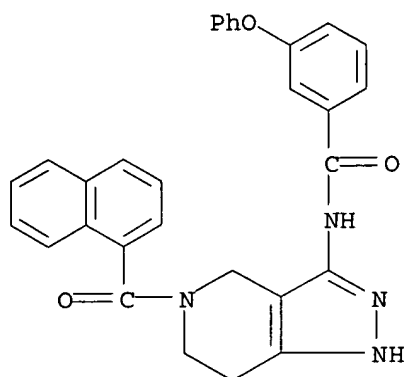
RN 398494-59-2 HCAPLUS

CN Benzamide, 3-phenoxy-N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



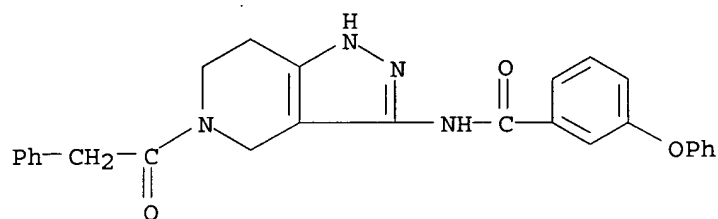
RN 398494-60-5 HCAPLUS

CN Benzamide, 3-phenoxy-N-[4,5,6,7-tetrahydro-5-(1-naphthalenylcarbonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



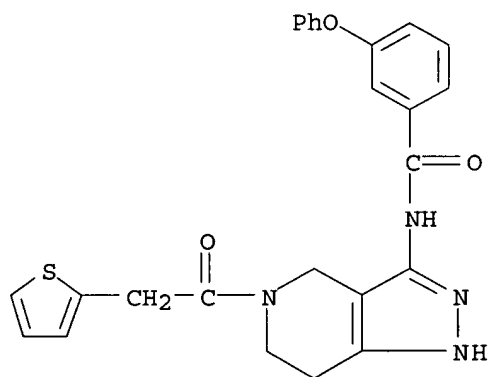
RN 398494-61-6 HCAPLUS

CN Benzamide, 3-phenoxy-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



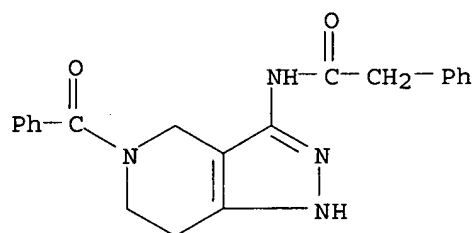
RN 398494-62-7 HCAPLUS

CN Benzamide, 3-phenoxy-N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



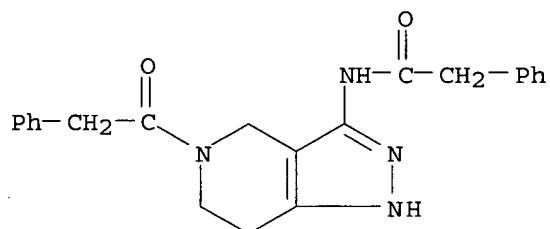
RN 398494-63-8 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-5-(2-quinoxalinylylcarbonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



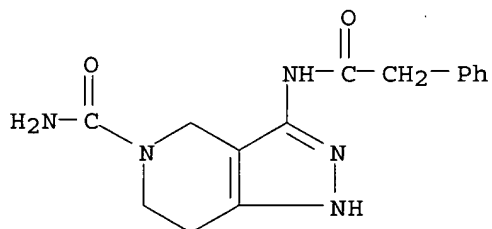
RN 398494-67-2 HCAPLUS

CN Benzeneacetamide, N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



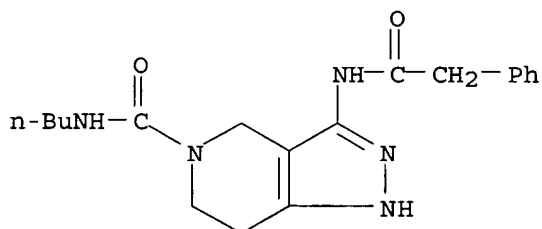
RN 398494-68-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(phenylacetyl)amino]- (9CI) (CA INDEX NAME)



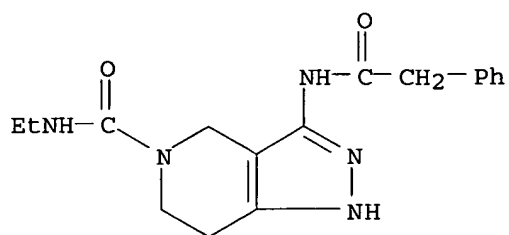
RN 398494-69-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-1,4,6,7-tetrahydro-3-[(phenylacetyl)amino]- (9CI) (CA INDEX NAME)



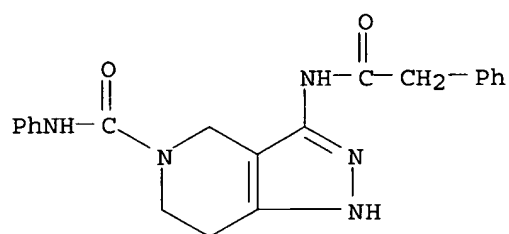
RN 398494-70-7 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-1,4,6,7-tetrahydro-3-[(phenylacetyl)amino]- (9CI) (CA INDEX NAME)



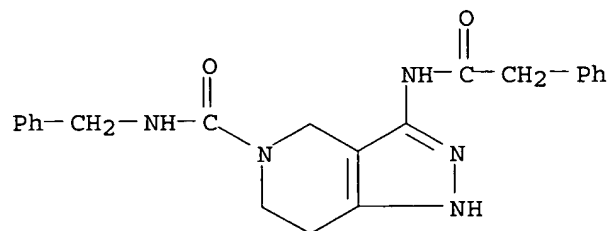
RN 398494-71-8 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-phenyl-3-[(phenylacetyl)amino]- (9CI) (CA INDEX NAME)



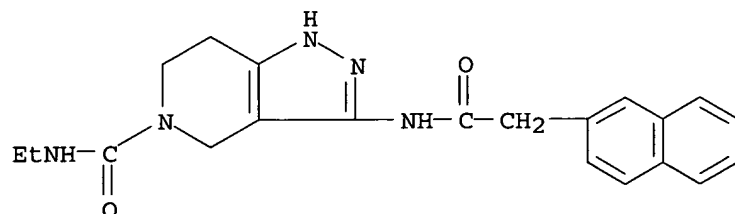
RN 398494-72-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(phenylacetyl)amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



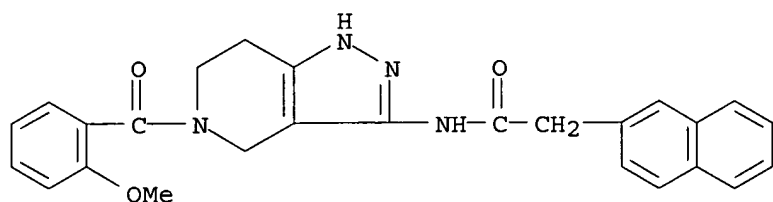
RN 398494-73-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-1,4,6,7-tetrahydro-3-[(2-naphthalenylacetyl)amino]- (9CI) (CA INDEX NAME)



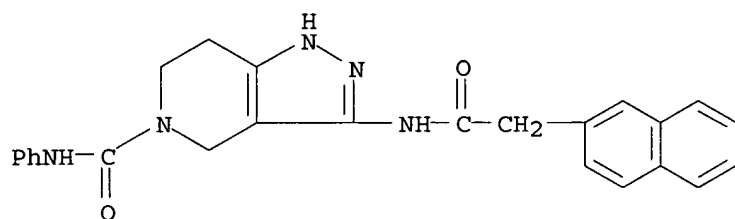
RN 398494-74-1 HCAPLUS

CN 2-Naphthaleneacetamide, N-[4,5,6,7-tetrahydro-5-(2-methoxybenzoyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



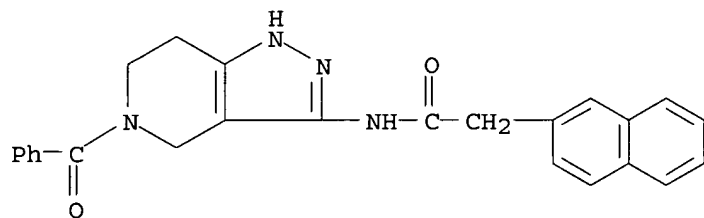
RN 398494-75-2 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(2-naphthalenylacetyl)amino]-N-phenyl- (9CI) (CA INDEX NAME)



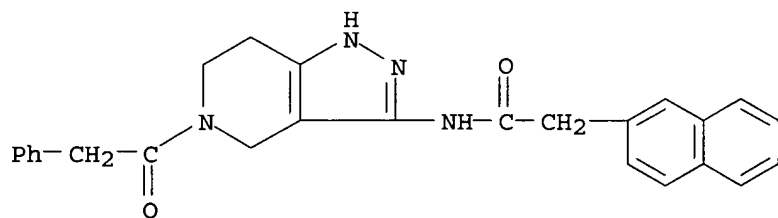
RN 398494-76-3 HCAPLUS

CN 2-Naphthaleneacetamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



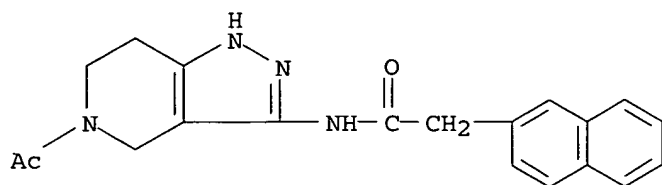
RN 398494-77-4 HCAPLUS

CN 2-Naphthaleneacetamide, N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



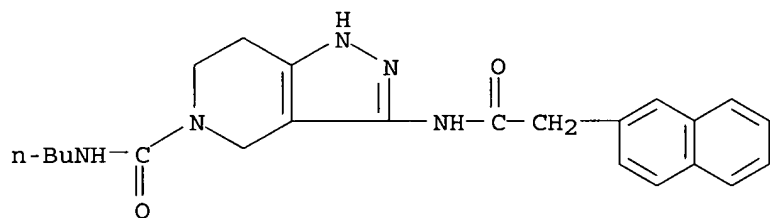
RN 398494-78-5 HCAPLUS

CN 2-Naphthaleneacetamide, N-(5-acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



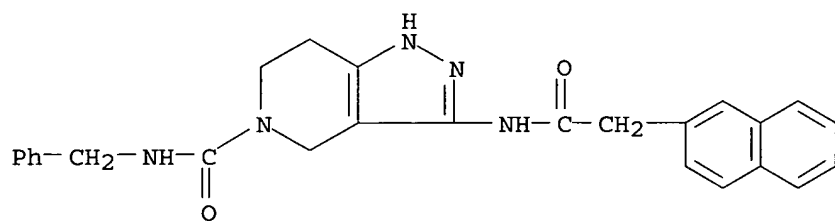
RN 398494-79-6 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-1,4,6,7-tetrahydro-3-[(2-naphthalenylacetyl)amino]- (9CI) (CA INDEX NAME)



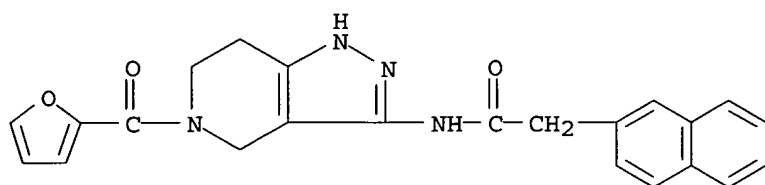
RN 398494-80-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(2-naphthalenylacetyl)amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



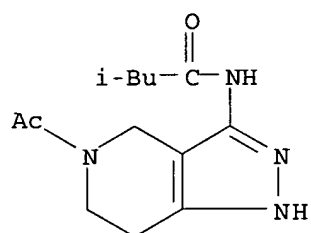
RN 398494-81-0 HCAPLUS

CN 2-Naphthaleneacetamide, N-[5-(2-furanylcarbonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



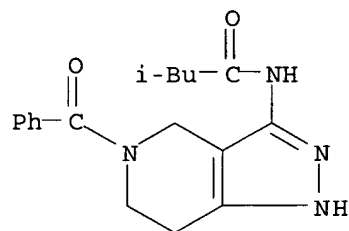
RN 398494-82-1 HCAPLUS

CN Butanamide, N-(5-acetyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-methyl- (9CI) (CA INDEX NAME)



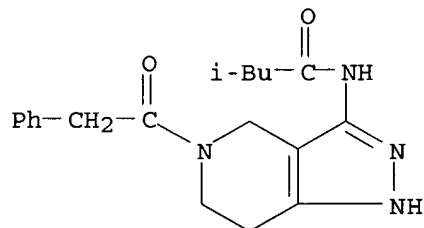
RN 398494-83-2 HCAPLUS

CN Butanamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)-3-methyl- (9CI) (CA INDEX NAME)



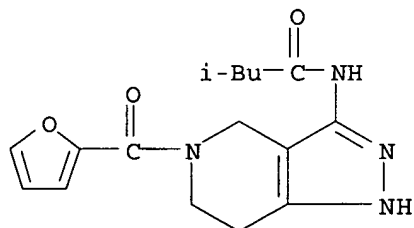
RN 398494-84-3 HCAPLUS

CN Butanamide, 3-methyl-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



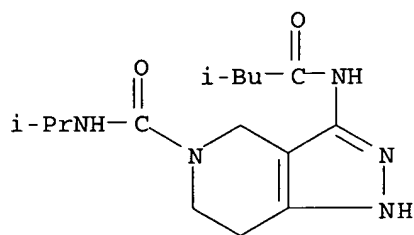
RN 398494-85-4 HCAPLUS

CN Butanamide, N-[5-(2-furanylcarbonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]-3-methyl- (9CI) (CA INDEX NAME)



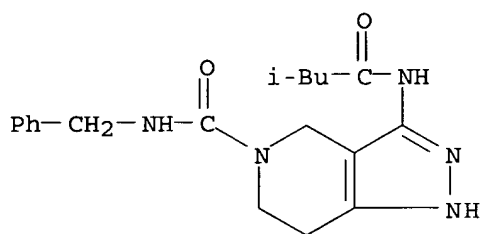
RN 398494-86-5 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[(3-methyl-1-oxobutyl)amino]- (9CI) (CA INDEX NAME)



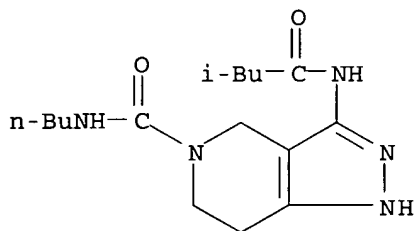
RN 398494-87-6 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(3-methyl-1-oxobutyl)amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



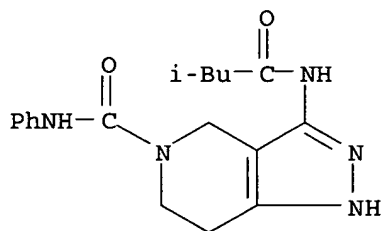
RN 398494-89-8 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-1,4,6,7-tetrahydro-3-[(3-methyl-1-oxobutyl)amino]- (9CI) (CA INDEX NAME)



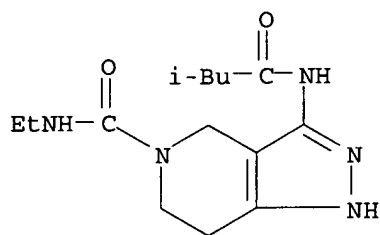
RN 398494-90-1 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(3-methyl-1-oxobutyl)amino]-N-phenyl- (9CI) (CA INDEX NAME)



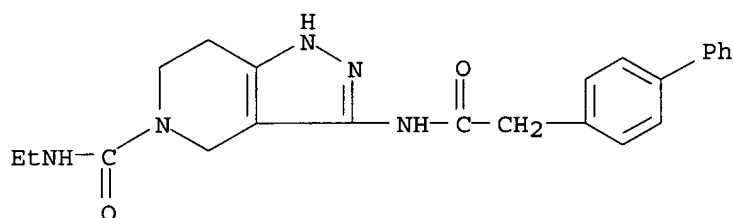
RN 398494-91-2 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-1,4,6,7-tetrahydro-3-[(3-methyl-1-oxobutyl)amino]- (9CI) (CA INDEX NAME)



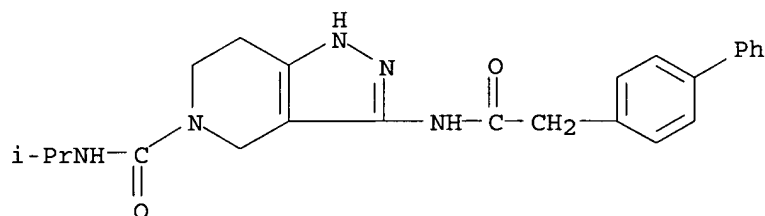
RN 398494-92-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-([1,1'-biphenyl]-4-ylacetyl)amino]-N-ethyl-1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



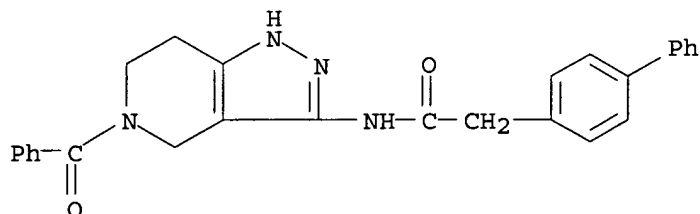
RN 398494-93-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-([1,1'-biphenyl]-4-ylacetyl)amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



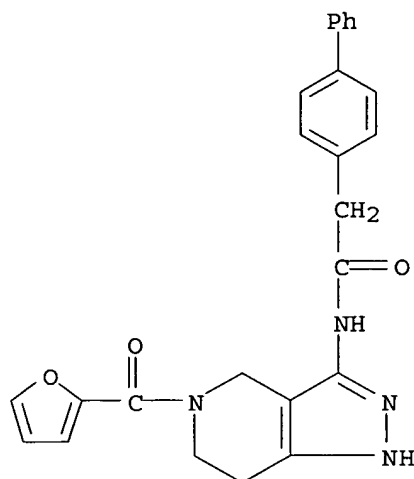
RN 398494-94-5 HCAPLUS

CN [1,1'-Biphenyl]-4-acetamide, N-(5-benzoyl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



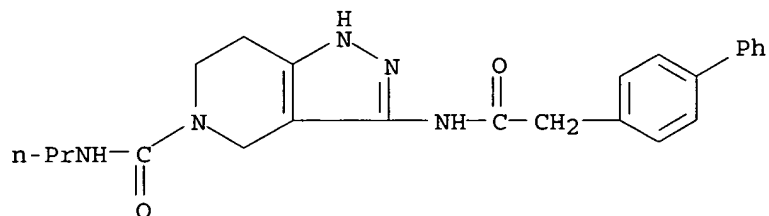
RN 398494-95-6 HCAPLUS

CN [1,1'-Biphenyl]-4-acetamide, N-[5-(2-furanylcabonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl)- (9CI) (CA INDEX NAME)



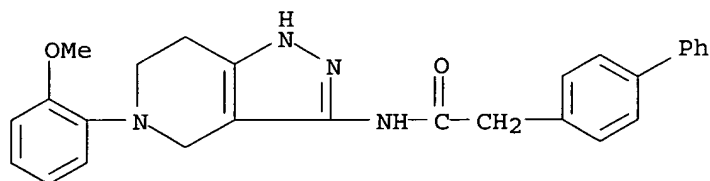
RN 398494-96-7 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-([(1,1'-biphenyl]-4-yl)acetyl)amino]-1,4,6,7-tetrahydro-N-propyl- (9CI) (CA INDEX NAME)



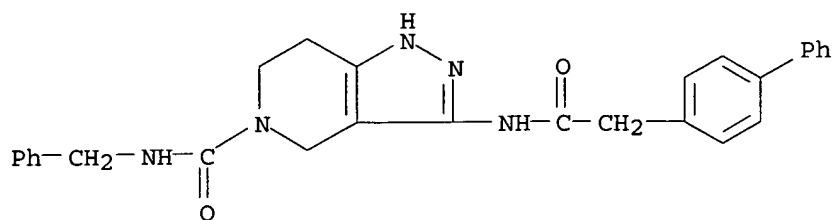
RN 398494-97-8 HCAPLUS

CN [1,1'-Biphenyl]-4-acetamide, N-[4,5,6,7-tetrahydro-5-(2-methoxyphenyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



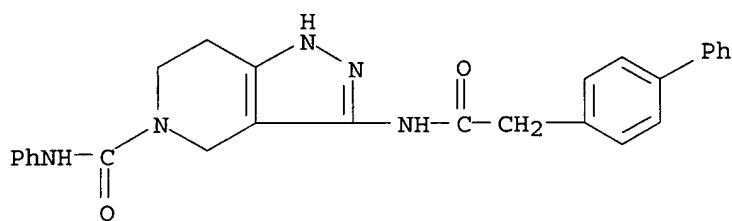
RN 398494-98-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-([(1,1'-biphenyl]-4-yl)acetyl)amino]-1,4,6,7-tetrahydro-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



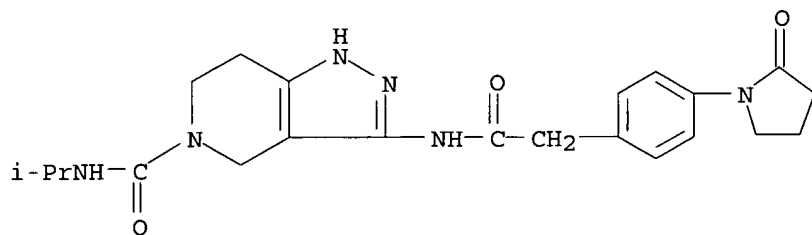
RN 398494-99-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-([(1,1'-biphenyl]-4-ylacetyl)amino]-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



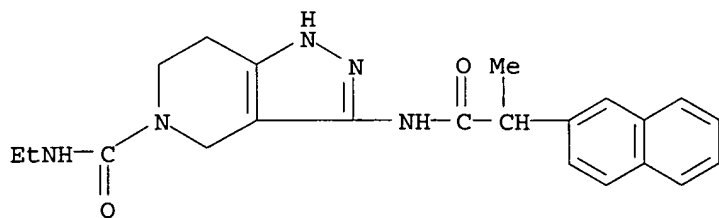
RN 398495-00-6 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[[[4-(2-oxo-1-pyrrolidinyl)phenyl]acetyl]amino]- (9CI) (CA INDEX NAME)



RN 398495-01-7 HCAPLUS

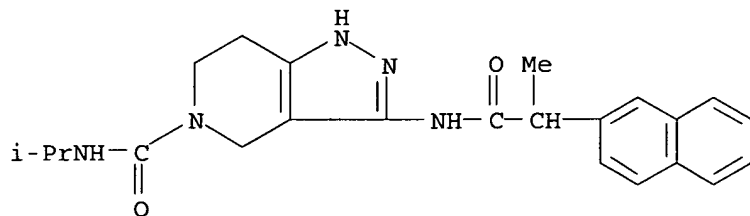
CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-1,4,6,7-tetrahydro-3-[[[2-(2-naphthalenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)



RN 398495-02-8 HCAPLUS

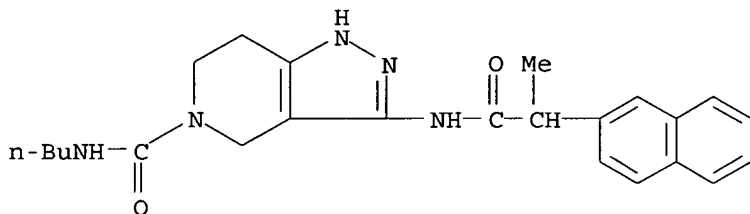
CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[[[2-(2-naphthalenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)

NAME)



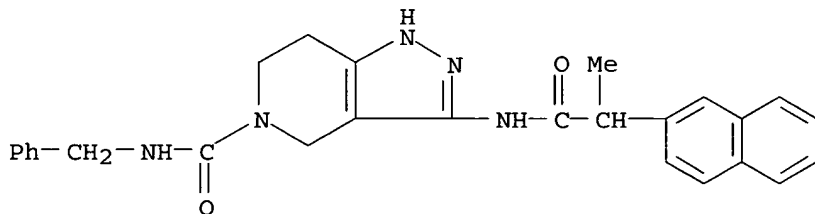
RN 398495-03-9 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-1,4,6,7-tetrahydro-3-[[2-(2-naphthalenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)



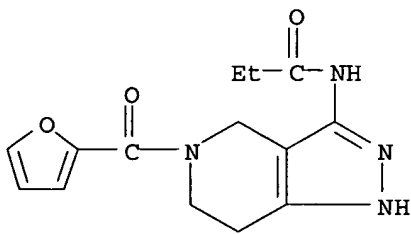
RN 398495-04-0 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[[2-(2-naphthalenyl)-1-oxopropyl]amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 398495-05-1 HCAPLUS

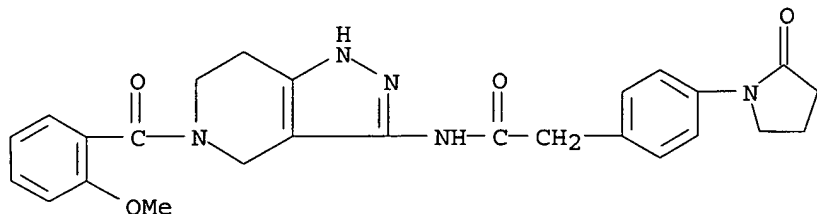
CN Propanamide, N-[5-(2-furanylcarbonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



RN 398495-06-2 HCAPLUS

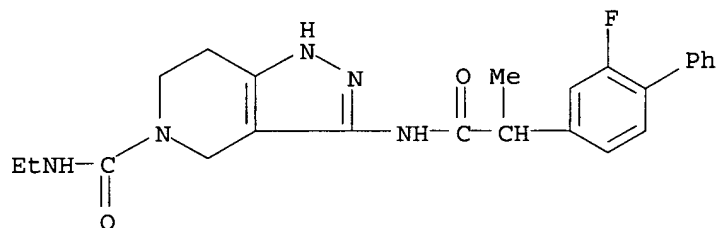
CN Benzeneacetamide, 4-(2-oxo-1-pyrrolidinyl)-N-[4,5,6,7-tetrahydro-5-(2-

methoxybenzoyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



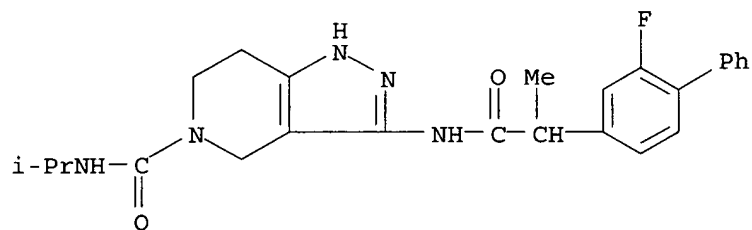
RN 398495-07-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-3-[[2-(2-fluoro[1,1'-biphenyl]-4-yl)-1-oxopropyl]amino]-1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



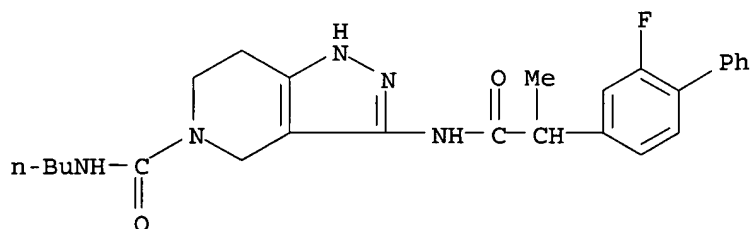
RN 398495-08-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[[2-(2-fluoro[1,1'-biphenyl]-4-yl)-1-oxopropyl]amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

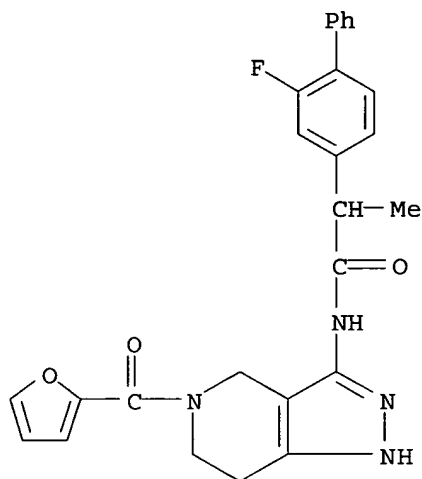


RN 398495-09-5 HCAPLUS

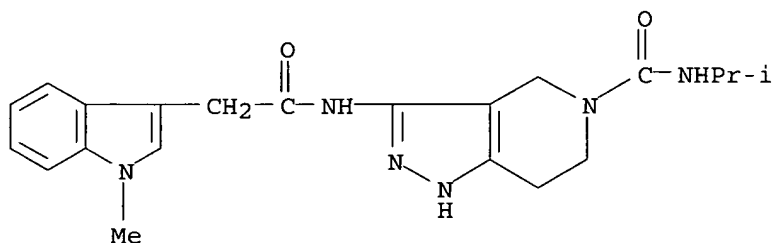
CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-3-[[2-(2-fluoro[1,1'-biphenyl]-4-yl)-1-oxopropyl]amino]-1,4,6,7-tetrahydro- (9CI) (CA INDEX NAME)



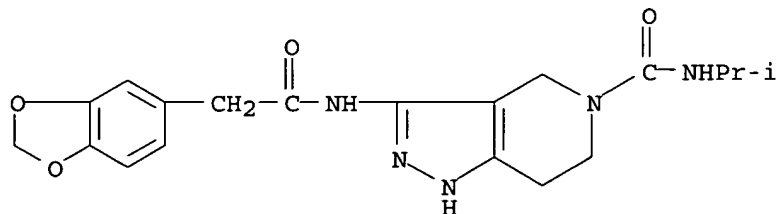
RN 398495-10-8 HCAPLUS
 CN [1,1'-Biphenyl]-4-acetamide, 2-fluoro-N-[5-(2-furanylcarbonyl)-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- α -methyl- (9CI) (CA INDEX NAME)



RN 398495-11-9 HCAPLUS
 CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[[1-(1-methyl-1H-indol-3-yl)acetyl]amino]- (9CI) (CA INDEX NAME)

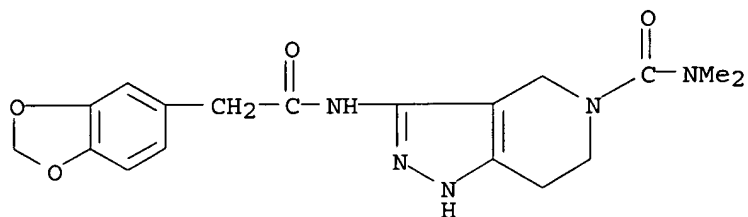


RN 398495-12-0 HCAPLUS
 CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(1,3-benzodioxol-5-ylacetyl)amino]-1,4,6,7-tetrahydro-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



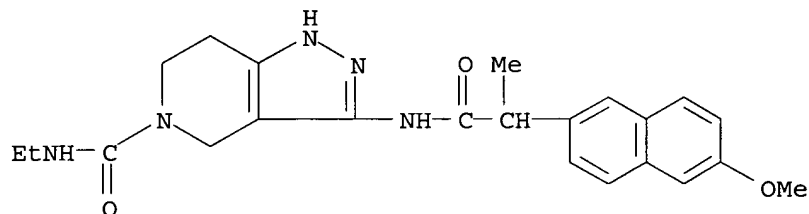
RN 398495-13-1 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(1,3-benzodioxol-5-ylacetyl)amino]-1,4,6,7-tetrahydro-N,N-dimethyl- (9CI) (CA INDEX NAME)



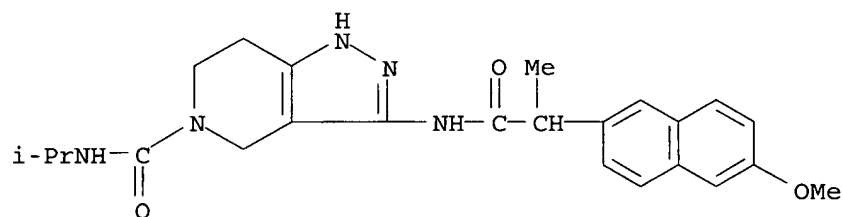
RN 398495-14-2 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-ethyl-1,4,6,7-tetrahydro-3-[[2-(6-methoxy-2-naphthalenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)



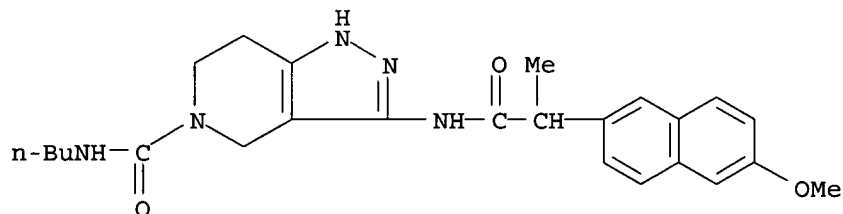
RN 398495-15-3 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[[2-(6-methoxy-2-naphthalenyl)-1-oxopropyl]amino]-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



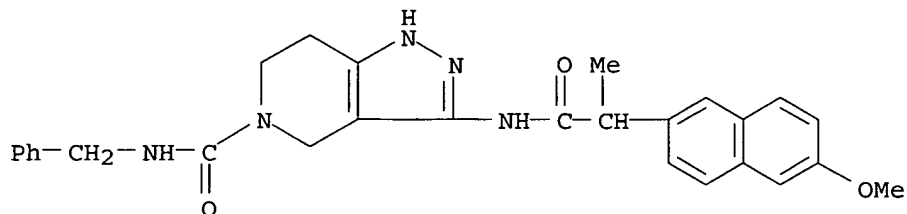
RN 398495-16-4 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, N-butyl-1,4,6,7-tetrahydro-3-[[2-(6-methoxy-2-naphthalenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)



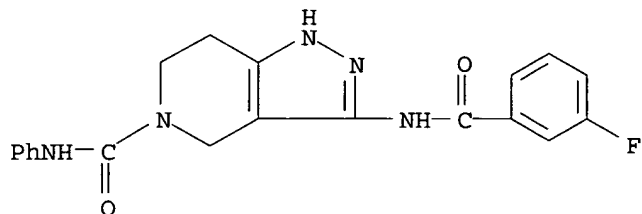
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CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[[2-(6-methoxy-2-naphthalenyl)-1-oxopropyl]amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



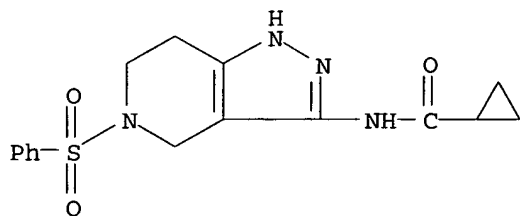
RN 398495-18-6 HCAPLUS

CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 3-[(3-fluorobenzoyl)amino]-1,4,6,7-tetrahydro-N-phenyl- (9CI) (CA INDEX NAME)



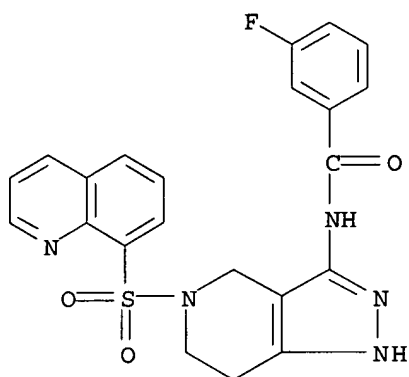
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CN Cyclopropanecarboxamide, N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



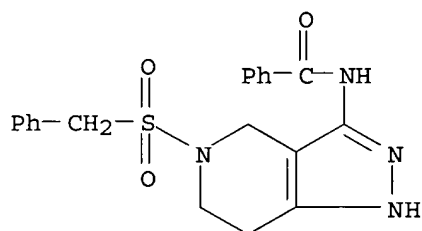
RN 398495-22-2 HCAPLUS

CN Benzamide, 3-fluoro-N-[4,5,6,7-tetrahydro-5-(8-quinolinylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



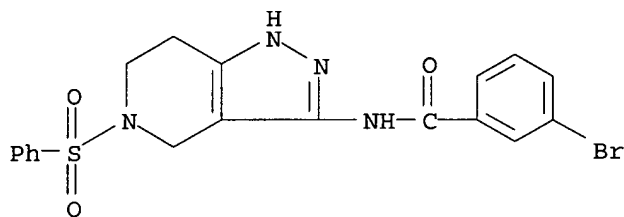
RN 398495-23-3 HCAPLUS

CN Benzamide, N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



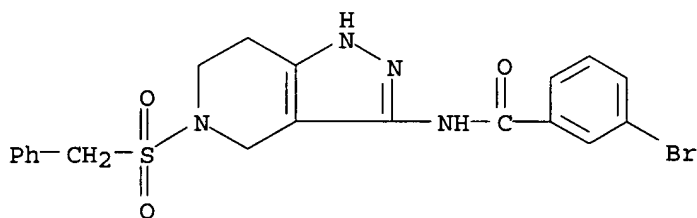
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CN Benzamide, 3-bromo-N-[4,5,6,7-tetrahydro-5-(phenylsulfonyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



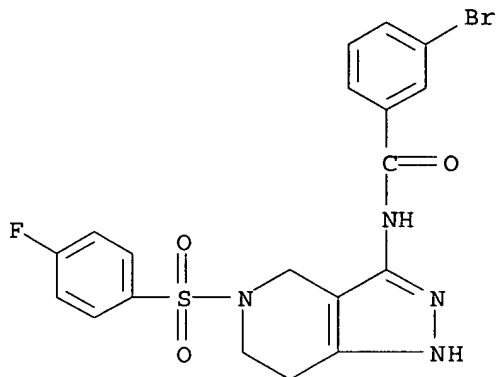
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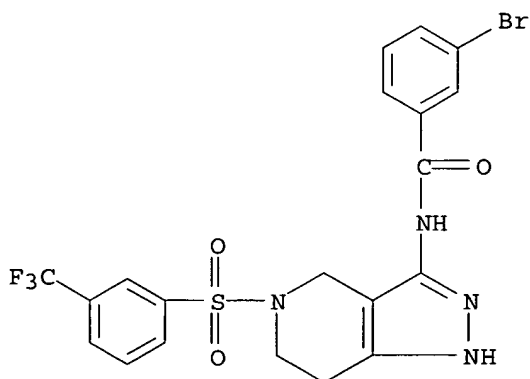
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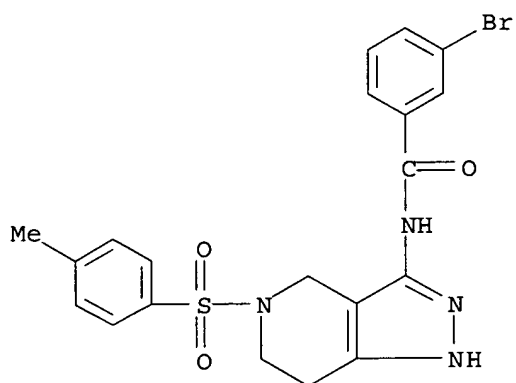
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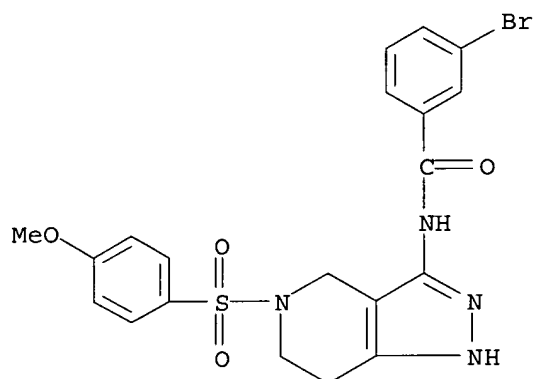
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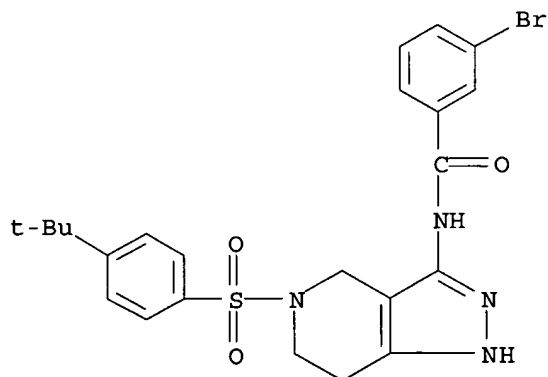
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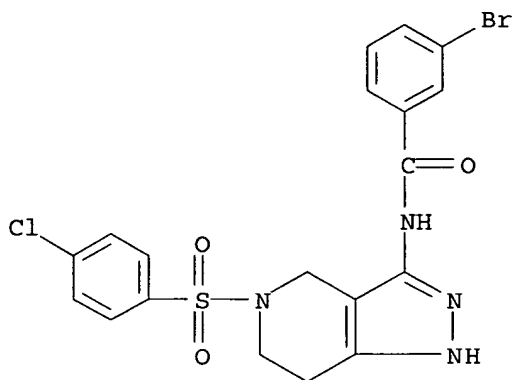
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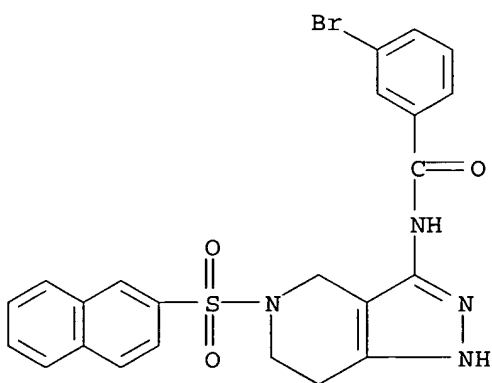
RN 398495-31-3 HCAPLUS

CN Benzamide, 3-bromo-N-[(4-chlorophenyl)sulfonyl]-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



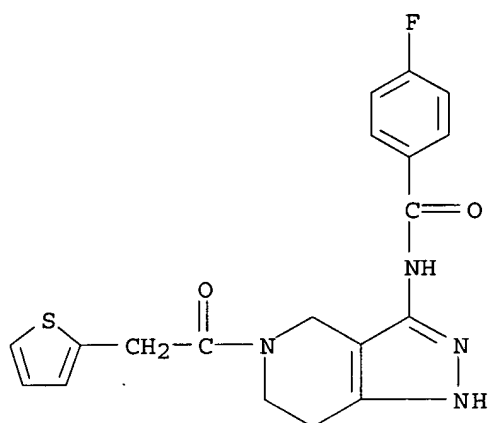
RN 398495-32-4 HCAPLUS

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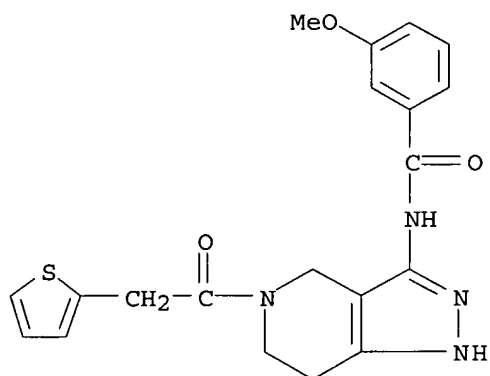
RN 398495-33-5 HCAPLUS

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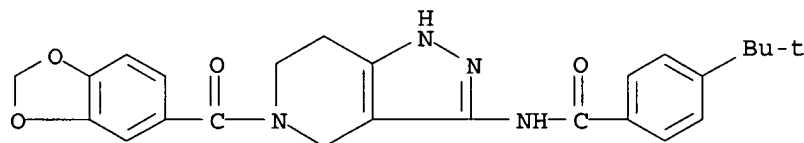
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CN Benzamide, 3-methoxy-N-[4,5,6,7-tetrahydro-5-(2-thienylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



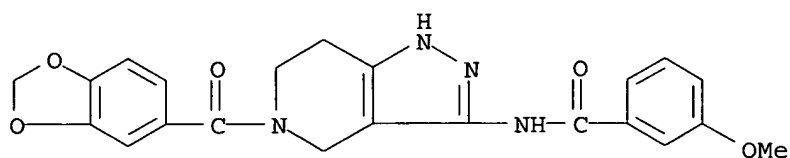
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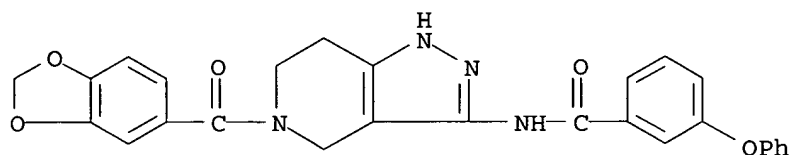
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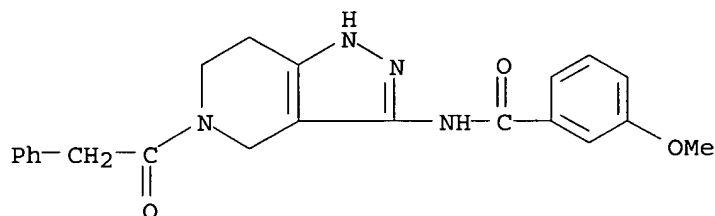
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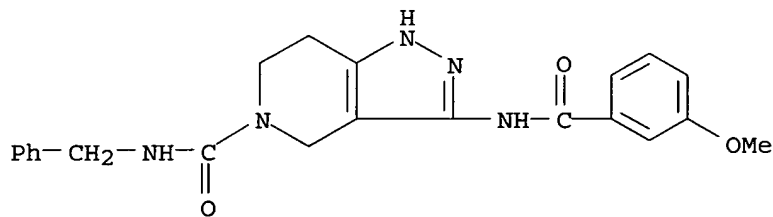
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CN Benzamide, 3-methoxy-N-[4,5,6,7-tetrahydro-5-(phenylacetyl)-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



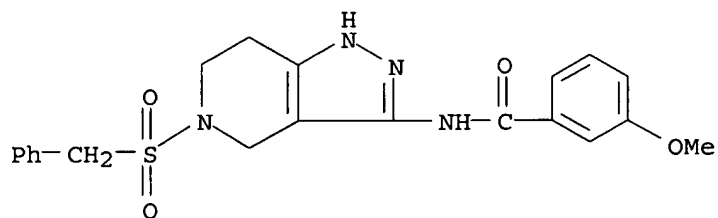
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CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-3-[(3-methoxybenzoyl)amino]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



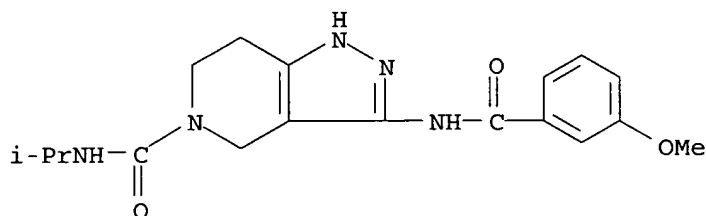
RN 398495-40-4 HCAPLUS

CN Benzamide, 3-methoxy-N-[4,5,6,7-tetrahydro-5-[(phenylmethyl)sulfonyl]-1H-pyrazolo[4,3-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



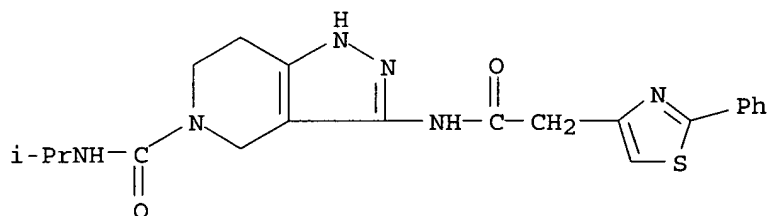
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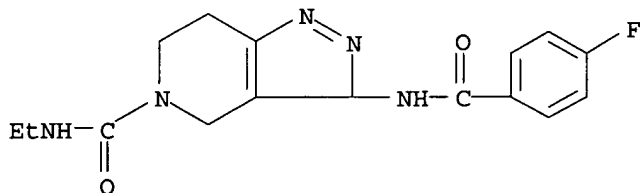
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CN 5H-Pyrazolo[4,3-c]pyridine-5-carboxamide, 1,4,6,7-tetrahydro-N-(1-methylethyl)-3-[[2-phenyl-4-thiazolyl]acetyl]amino]- (9CI) (CA INDEX NAME)



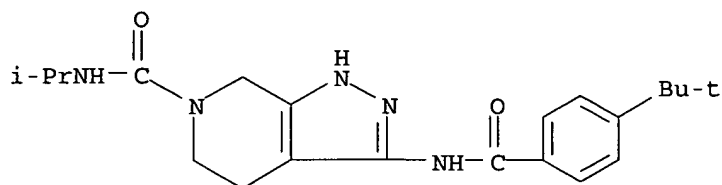
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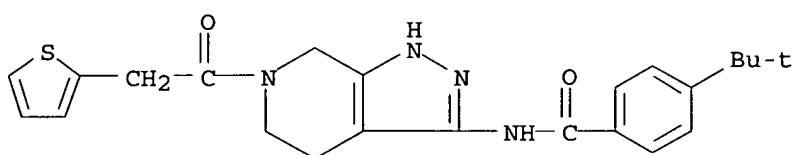
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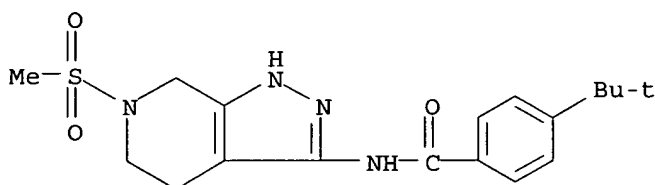
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CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-6-(2-thienylacetyl)-1H-pyrazolo[3,4-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



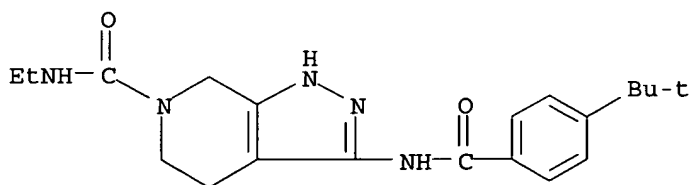
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CN Benzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-6-(methylsulfonyl)-1H-pyrazolo[3,4-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



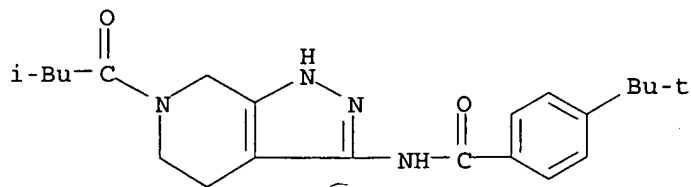
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CN 6H-Pyrazolo[3,4-c]pyridine-6-carboxamide, 3-[[4-(1,1-dimethylethyl)benzoyl]amino]-N-ethyl-1,4,5,7-tetrahydro- (9CI) (CA INDEX NAME)



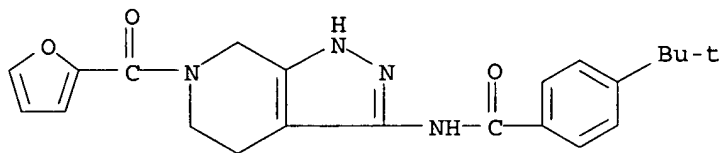
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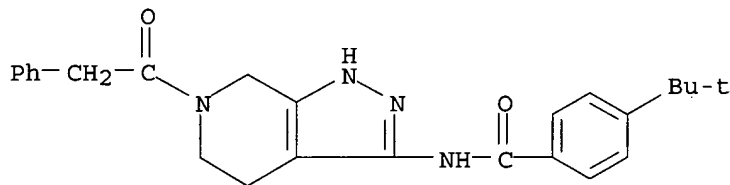
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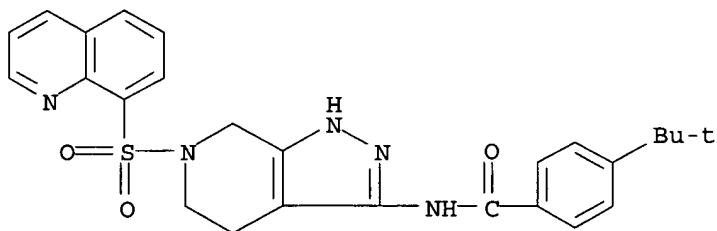
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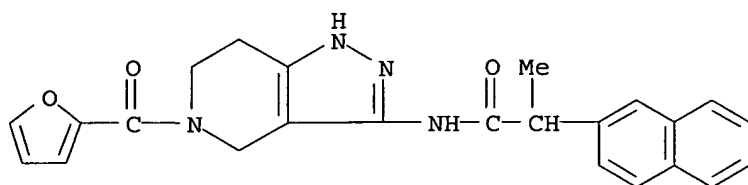
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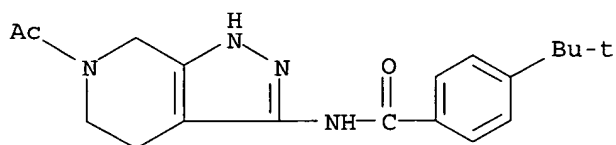
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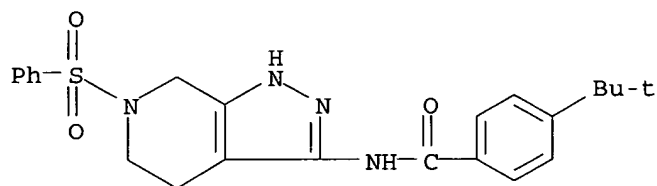
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RN 398507-32-9 HCAPLUS

CN Enzamide, 4-(1,1-dimethylethyl)-N-[4,5,6,7-tetrahydro-6-(phenylsulfonyl)-1H-pyrazolo[3,4-c]pyridin-3-yl]- (9CI) (CA INDEX NAME)



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ACCESSION NUMBER: 2002:89868 HCAPLUS

DOCUMENT NUMBER: 136:156415

TITLE: Polymeric **conjugates** of antitumor agents

INVENTOR(S): Suarato, Antonino; Angelucci, Francesco; Caruso, Michele; Scolaro, Alessandra; Volpi, Daniele; Zama, Moreno

PATENT ASSIGNEE(S): Pharmacia & Upjohn S.p.A., Italy

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002007770	A2	20020131	WO 2001-EP7883	20010709 <--
WO 2002007770	A3	20020516		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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 US 2003195152 A1 20031016 US 2003-333619 20030410 <--
 PRIORITY APPLN. INFO.: GB 2000-18240 A 20000725 <--
 WO 2001-EP7883 W 20010709

OTHER SOURCE(S): MARPAT 136:156415

ED Entered STN: 01 Feb 2002

AB Water soluble polymeric conjugates of antitumor agents containing **peptides** that selectively are cleaved at the tumor site mainly by the action of the matrix metalloproteinases, e.g., gelatinase. The conjugates have enhanced antitumor activity and decreased toxicity with respect to the free drug. A process for their preparation, useful intermediates and pharmaceutical compns. containing them are also described. Thus, a camptothecin derivative containing **peptides** was prepared and allowed to react with N-(2-hydroxypropyl)methacrylamide and N-(2-hydroxypropyl)methacryloylglycinamide. The conjugate prepared was nontoxic at all tested doses and gave 98% tumor inhibition against human colon carcinoma at 20 mg/kg in mice.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 34, 37

ST polymer **conjugate** antitumor prepn; polymethacrylamide
 camptothecin **peptide** deriv antitumor prepn

IT Antitumor agents

(colon carcinoma; polymeric **conjugates** of antitumor agents)

IT Intestine, neoplasm

(colon, carcinoma, inhibitors; polymeric **conjugates** of
 antitumor agents)

IT Intestine, neoplasm

(colon, inhibitors; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(colon; polymeric **conjugates** of antitumor agents)

IT Intestine, neoplasm

(colorectal, inhibitors; polymeric **conjugates** of antitumor
 agents)

IT Antitumor agents

(colorectal; polymeric **conjugates** of antitumor agents)

IT Kidney, neoplasm

Lung, neoplasm

Ovary, neoplasm

(inhibitors; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(kidney; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(leukemia; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(lung; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(mammary gland; polymeric **conjugates** of antitumor agents)

IT Antitumor agents

(melanoma; polymeric **conjugates** of antitumor agents)

IT Mammary gland

Prostate gland
 (neoplasm, inhibitors; polymeric **conjugates** of antitumor agents)

IT Antitumor agents
 (ovary; polymeric **conjugates** of antitumor agents)

IT **Drug delivery systems**
 (polymer-bound; polymeric **conjugates** of antitumor agents)

IT Antitumor agents
 (polymeric **conjugates** of antitumor agents)

IT Anthracyclines
Nucleosides, biological studies
 Taxanes
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polymeric **conjugates** of antitumor agents)

IT Antitumor agents
 (prostate gland; polymeric **conjugates** of antitumor agents)

IT Alkaloids, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vinca; polymeric **conjugates** of antitumor agents)

IT 393780-58-ODP, reaction products with **peptide**-containing
 camptothecin or vinblastine derivs. 393780-59-1DP, reaction products
 with polymethacrylamide derivs. 393780-61-5DP, reaction products with
 polymethacrylamide derivs.
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (polymeric **conjugates** of antitumor agents)

IT 51-21-8D, polymeric **conjugates** 518-28-5D, Podophyllotoxin,
 polymeric **conjugates** 2998-57-4D, Estramustine, polymeric
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conjugates 7689-03-4D, Camptothecin, derivs. polymeric
conjugates 9004-54-0D, Dextran, derivs.,
peptide-containing antitumor drug **conjugates**
 20830-81-3D, polymeric **conjugates** 23214-92-8D,
 polymeric **conjugates** 24991-23-9D, **peptide**-containing
 antitumor drug **conjugates** 25513-46-6D, Polyglutamic acid,
peptide-containing antitumor drug **conjugates** 33069-62-4D,
 polymeric **conjugates** 33419-42-0D, Etoposide, polymeric
conjugates 53643-48-4D, Vindesine, polymeric **conjugates**
 56420-45-2D, polymeric **conjugates** 58957-92-9D, polymeric
conjugates 83997-74-4D, polymeric **conjugates**
 86639-52-3D, polymeric **conjugates** 91421-43-1D, polymeric
conjugates 114977-28-5D, Docetaxel, polymeric **conjugates**
 157380-64-8D, polymeric **conjugates** 183670-85-1D, polymeric
conjugates 393780-64-8D, polymeric **conjugates**
 393780-65-9D, polymeric **conjugates** 393780-66-0D, polymeric
conjugates 393780-67-1D, polymeric **conjugates**
 393780-68-2D, polymeric **conjugates** 393780-69-3D, polymeric
conjugates 393780-70-6D, polymeric **conjugates**
 393780-71-7D, polymeric **conjugates** 393780-72-8D, polymeric
conjugates 393780-73-9D, polymeric **conjugates**
 393780-74-0D, polymeric **conjugates** 393780-75-1D, polymeric
conjugates 393780-76-2D, polymeric **conjugates**
 393780-77-3D, polymeric **conjugates** 393780-78-4D, polymeric
conjugates 393780-79-5D, polymeric **conjugates**
 393780-80-8D, polymeric **conjugates** 393780-81-9D, polymeric
conjugates 393780-82-0D, polymeric **conjugates**
 393780-83-1D, polymeric **conjugates** 393780-84-2D, polymeric
conjugates 393780-85-3D, polymeric **conjugates**
 393780-86-4D, polymeric **conjugates** 393780-87-5D, polymeric

conjugates 393780-88-6D, polymeric **conjugates**
393780-89-7D, polymeric **conjugates** 393780-90-0D, polymeric
conjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

(polymeric **conjugates** of antitumor agents)

IT 143-67-9 3655-05-8 5068-28-0 13139-15-6 86639-52-3 103321-59-1
393780-55-7 393780-63-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(polymeric **conjugates** of antitumor agents)

IT 865-21-4P, Vincal leukoblastine 3352-69-0P 226971-44-4P 393780-46-6P
393780-48-8P 393780-49-9P 393780-51-3P 393780-52-4P 393780-54-6P
393780-57-9P 393780-60-4P 393780-62-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(polymeric **conjugates** of antitumor agents)

IT 9004-54-0D, Dextran, derivs., peptide-containing
antitumor drug **conjugates** 20830-81-3D, polymeric
conjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

(polymeric **conjugates** of antitumor agents)

RN 9004-54-0 HCAPLUS

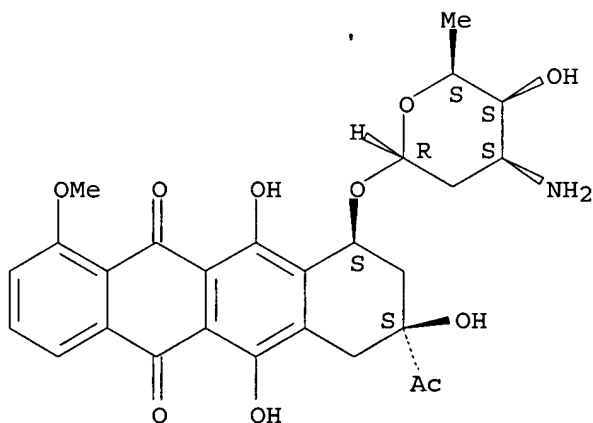
CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 24 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:31286 HCAPLUS

DOCUMENT NUMBER: 136:90918

TITLE: Isolation of a cell-specific internalizing
peptide that infiltrates tumor tissue for
targeted drug delivery

INVENTOR(S): Clayman, Gary; Hong, Frank D.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 104 pp.

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002147	A2	20020110	WO 2001-US21518	20010702 <--
WO 2002002147	A3	20020725		
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
CA 2414650	AA	20020110	CA 2001-2414650	20010702 <--
US 2002102265	A1	20020801	US 2001-899376	20010702 <--
US 6919425	B2	20050719		
EP 1297002	A2	20030402	EP 2001-958886	20010702 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004501664	T2	20040122	JP 2002-506768	20010702 <--
PRIORITY APPLN. INFO.:			US 2000-215491P	P 20000630 <--
			WO 2001-US21518	W 20010702

ED Entered STN: 11 Jan 2002

AB The present invention provides a tumor-homing **peptide** that can target cancer and/or tumor tissues. The **peptide** is taken up by certain specific cancer cell types. The invention describes methods to achieve targeted delivery of anticancer drugs conjugated to this **peptide** for anticancer therapy. The invention also describes methods for using the **peptide** for the diagnosis and imaging of cancer and tumor tissues.

IC ICM A61K047-48

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 8, 9

ST tumor homing **peptide** antitumor drug targeting

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (BRCA1, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (BRCA2, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(CFTR; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

IT **Proteins**

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (CTS-1, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

IT **Proteins**

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (DCC, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

IT **Proteins**

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (FCC, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)

- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(HSTF1; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(Jun; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (MCC, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (MEN-I, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (MEN-II, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (MMAC1, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Neurofilament **proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF-1, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Neurofilament **proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF-M, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Imaging
(NMR; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RB1; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (VHL (von Hippel-Lindau), gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study) (WT1 (Wilms' tumor suppressor 1), gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Diagnosis
(agents; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (bcl; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (c-abl; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (c-fms; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (c-myc; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (c-src; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Larynx
 Mouth
 Nose
 Parathyroid gland
 Pharynx
 Salivary gland
 Skin
 (cancer cells of; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT Cell adhesion molecules
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (cell-CAM 105 (cell-cell adhesion mol. 105), gene encoding; isolation
 of cell-specific internalizing **peptide** infiltrating tumor
 tissue for targeted drug delivery)

IT Lymph node
 (cervical, cancer cells of; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT **Peptides, biological studies**
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**conjugates**, with drugs; isolation of cell-specific
 internalizing **peptide** infiltrating tumor tissue for targeted
 drug delivery)

IT APC **protein**
 Interleukin 1
 Interleukin 10
 Interleukin 11
 Interleukin 12
 Interleukin 2
 Interleukin 3
 Interleukin 4
 Interleukin 5

Interleukin 6
Interleukin 7
Interleukin 8
Interleukin 9
p53 (**protein**)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene encoding; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical
process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
USES (Uses)
(gsp; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)

IT Neoplasm
Neoplasm
(head and neck, inhibitors; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT Head and Neck, neoplasm
Head and Neck, neoplasm
Parathyroid gland, neoplasm
Thyroid gland, neoplasm
(inhibitors; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
(injections, i.p.; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
(injections, i.v.; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
(injections, s.c.; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
(intratumoral; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)

IT Electron beams
Microwave
(irradiation; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)

IT Antitumor agents
Apoptosis
Chemotherapy
Cytotoxic agents
Diagnosis
Gamma ray
Gene therapy
Genetic vectors
Mammary gland, neoplasm
Peptide library
Phage display library
Positron-emission tomography
Radiotherapy
Spin labels
Surgery
Test kits
Tomography
UV radiation
X-ray
(isolation of cell-specific internalizing **peptide**)

- infiltrating tumor tissue for targeted drug delivery)
- IT Radionuclides, biological studies
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT **Peptides**, biological studies
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT Lipids, biological studies
Nucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT **Drug delivery systems**
(liposomes; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ntrk1; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT Cyclin dependent kinase inhibitors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p16INK4A, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Cyclin dependent kinase inhibitors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p21CIP1, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p27, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p57, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p73, gene encoding; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Respiratory system
(paranasal sinus, cancer cells of; isolation of cell-specific internalizing **peptide** infiltrating tumor tissue for targeted drug delivery)
- IT Neoplasm
(**peptide conjugate** up-take by; isolation of
cell-specific internalizing **peptide** infiltrating tumor tissue
for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(raf; isolation of cell-specific internalizing **peptide**
infiltrating tumor tissue for targeted drug delivery)
- IT Gene, animal
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (ras; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Gene, animal
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (ret; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT **Proteins**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (scfV ras, gene encoding; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT Neoplasm
 (solid; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT Carcinoma
 (squamous cell; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
 (targeted; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT **Drug delivery systems**
 (topical; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT DNA
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (tumor-homing **peptide**-encoding; isolation of cell-specific
 internalizing **peptide** infiltrating tumor tissue for targeted
 drug delivery)

IT Biological transport
 (uptake, of **peptide conjugates**; isolation of
 cell-specific internalizing **peptide** infiltrating tumor tissue
 for targeted drug delivery)

IT Imaging
 (x-ray; isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT **Proteins**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (zac1, gene encoding; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT 9002-06-6, Thymidine kinase 83869-56-1, Gmcsf 143011-72-7, GCSF
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gene encoding; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT 386223-83-2
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT 50-18-0D, Cyclophosphamide, **peptide conjugates**
 50-76-0D, Dactinomycin, **peptide conjugates** 51-21-8D,
 5-Fluorouracil, **peptide conjugates** 51-75-2D,
 Mechlorethamine, **peptide conjugates** 55-98-1D,
 Busulfan, **peptide conjugates** 57-22-7D, Vincristine,
peptide conjugates 59-05-2D, Methotrexate,
peptide conjugates 148-82-3D, Melphalan,
peptide conjugates 305-03-3, Chlorambucil 671-16-9D,

Procarbazine, **peptide conjugates** 865-21-4D,
 Vinblastine, **peptide conjugates** 1404-00-8D,
 Mitomycin, **peptide conjugates** 3778-73-2D,
 Ifosfamide, **peptide conjugates** 10540-29-1D,
 Tamoxifen, **peptide conjugates** 11056-06-7D,
 Bleomycin, **peptide conjugates** 13010-20-3D,
 Nitrosourea, **peptide conjugates** 14913-33-8D,
 Transplatin, **peptide conjugates** 15663-27-1D,
 Cisplatin, **peptide conjugates** 20830-81-3D,
 Daunorubicin, **peptide conjugates** 23214-92-8D,
 Doxorubicin, **peptide conjugates** 33069-62-4, Taxol
 33069-62-4D, Taxol, **peptide conjugates** 33419-42-0D,
 Etoposide, **peptide conjugates** 41575-94-4D,
 Carboplatin, **peptide conjugates**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

IT 386768-31-6 386768-32-7

RL: PRP (Properties)

(unclaimed sequence; isolation of cell-specific internalizing
peptide infiltrating tumor tissue for targeted drug delivery)

IT 20830-81-3D, Daunorubicin, **peptide conjugates**

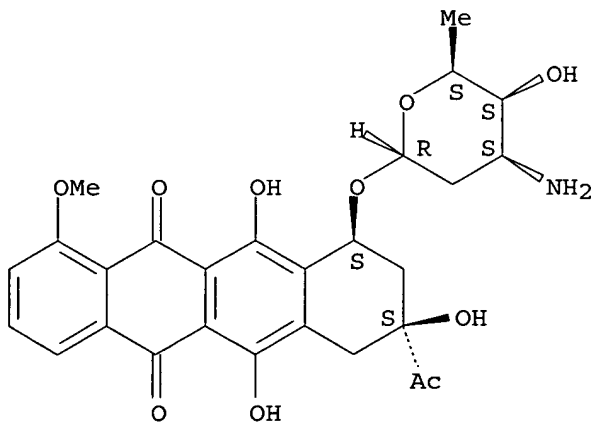
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(isolation of cell-specific internalizing **peptide**
 infiltrating tumor tissue for targeted drug delivery)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 25 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:903794 HCAPLUS

DOCUMENT NUMBER: 136:58784

TITLE: Encapsulation of plasmid DNA (Lipogenes) and
 therapeutic agents with nuclear localization
 signal/fusogenic **peptide conjugates**
 into targeted liposome complexes

INVENTOR(S): Boulikas, Teni

PATENT ASSIGNEE(S): USA
 SOURCE: PCT Int. Appl., 107 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093836	A2	20011213	WO 2001-US18657	20010608 <--
WO 2001093836	A3	20021003		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2411542	AA	20011213	CA 2001-2411542	20010608 <--
EP 1292284	A2	20030319	EP 2001-942131	20010608 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003072794	A1	20030417	US 2001-876904	20010608 <--
JP 2003535832	T2	20031202	JP 2002-501409	20010608 <--
PRIORITY APPLN. INFO.:				
			US 2000-210925P	P 20000609 <--
			WO 2001-US18657	W 20010608

ED Entered STN: 14 Dec 2001

AB A method is disclosed for encapsulating plasmids, **oligonucleotides** or neg.-charged drugs into liposomes having a different lipid composition between their inner and outer membrane bilayers and able to reach primary tumors and their metastases after i.v. injection to animals and humans. The formulation method includes complex formation between DNA with cationic lipid mols. and fusogenic/NLS **peptide** conjugates composed of a hydrophobic chain of about 10-20 amino acids and also containing four or more histidine residues or NLS at their one end. The encapsulated mols. display therapeutic efficacy in eradicating a variety of solid human tumors including but not limited to breast carcinoma and prostate carcinoma. Combination of the plasmids, **oligonucleotides** or neg.-charged drugs with other anti-neoplastic drugs (the pos.-charged cis-platin, doxorubicin) encapsulated into liposomes are of therapeutic value. Also of therapeutic value in cancer eradication are combinations of the encapsulated plasmids, **oligonucleotides** or neg.-charged drugs with HSV-tk plus encapsulated ganciclovir.

IC ICM A61K009-127

ICS C12N015-88

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 2, 15

IT Apolipoproteins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (A-II, **peptides**; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT **Proteins**

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Bad, gene encoding; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Bax, gene encoding; encapsulation of plasmid DNA (Lipogenes) and
therapeutic agents with nuclear localization signal/fusogenic
peptide conjugates into targeted liposome complexes)
- IT Quaternary structure
(DNA triplex, -forming **oligonucleotides**; encapsulation of
plasmid DNA (Lipogenes) and therapeutic agents with nuclear
localization signal/fusogenic **peptide conjugates**
into targeted liposome complexes)
- IT **Proteins**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(NLS (nuclear location signal sequence)-containing; encapsulation of
plasmid DNA (Lipogenes) and therapeutic agents with nuclear
localization signal/fusogenic **peptide conjugates**
into targeted liposome complexes)
- IT Lipids, biological studies
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP
(Physical process); THU (Therapeutic use); BIOL (Biological study); PROC
(Process); USES (Uses)
(acidic; encapsulation of plasmid DNA (Lipogenes) and therapeutic
agents with nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Lipids, biological studies
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP
(Physical process); THU (Therapeutic use); BIOL (Biological study); PROC
(Process); USES (Uses)
(cationic; encapsulation of plasmid DNA (Lipogenes) and therapeutic
agents with nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Antitumor agents
Fusion, biological
Gene therapy
Micelles
Molecular weight distribution
Plasmid vectors
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Interleukin 12
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Antisense **oligonucleotides**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
nuclear localization signal/fusogenic **peptide**
conjugates into targeted liposome complexes)
- IT Interferons
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

- (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Interleukins
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Ribozymes
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT DNA
Nucleic acids
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Polyoxyalkylenes, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Interleukin 2
 p53 (**protein**)
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gene encoding; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Envelope **proteins**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (gp41env, of HIV-1; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Sendai virus
 (heptad repeat of; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Genetic element
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (heptad repeat; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Signal transduction, biological
 (inhibitors; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Drug delivery systems**
 (injections, i.v.; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Drug delivery systems**
 (liposomes; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

- IT Cell nucleus
(matrix DNA; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Drug delivery systems**
(micelles; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Encapsulation
(microencapsulation; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(oncostatin, gene encoding; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Cyclin dependent kinase inhibitors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p21CIP1, gene encoding; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Bone marrow
Liver
Neoplasm
Spleen
(promoters specific for; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Human herpesvirus
(thymidine kinase gene of; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Human immunodeficiency virus 1
(transmembrane glycoprotein gp41 of; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Ebola virus
(transmembrane **protein**; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(transmembrane, gp41, of HIV1, **peptides**; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT **Proteins**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(transmembrane, of Ebola virus; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT Alkaloids, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vinca; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents

with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT **Amyloid**

RL: BSU (Biological study, unclassified); BIOL (Biological study) (β-, of Alzheimer's disease; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT Alzheimer's disease

(β-amyloid **peptides** of; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 52102-43-9, Chlormethamide

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Chlormethamide; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 322453-59-8, DMTAP

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (DMTAP; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 1402-38-6, Oncostatin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Oncostatin; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 22089-22-1, Trifosfamide

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Trifosfamide; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 380359-73-9

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 3282-73-3, DDAB 104162-48-3, Dotma 124050-77-7 137056-72-5

138915-91-0 153312-64-2, Dmrie 173666-09-6, DSTAP
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT 95088-49-6 104914-40-1 108069-22-3 110711-69-8 112997-93-0

118540-34-4 122363-12-6 122363-14-8 135877-35-9 135929-31-6
137006-81-6 139123-11-8 139123-12-9 139123-13-0 143050-39-9
145545-42-2 152551-92-3 154511-04-3 154561-14-5 158582-70-8
191936-91-1 205385-38-2 205385-40-6 205385-44-0 205385-47-3
212556-37-1 247040-74-0D, N-terminal lysine and/or arginine and/or
histidine extended 250684-89-0 253328-21-1 253328-23-3 260055-29-6
265979-95-1 265979-96-2 265979-97-3 331755-24-9 340737-68-0
373354-03-1 379717-53-0 379717-54-1 379717-55-2 379717-56-3
379717-57-4 379717-58-5D, N-terminal leucine and/or alanine and/or

isoleucine extended	379717-59-6	379717-60-9	379717-61-0	
379717-62-1	379717-63-2	379717-64-3	379717-65-4	379717-66-5
379717-67-6	379717-68-7	379717-70-1	379717-72-3	379717-74-5
379717-76-7	379717-78-9	379717-81-4	379717-82-5	379717-83-6
379717-84-7	379717-85-8	379717-86-9	379717-87-0	379717-88-1
379717-89-2	379717-90-5	379717-91-6	379717-92-7	379717-93-8
379717-94-9	379717-95-0	379717-96-1	379717-97-2	379717-98-3
379717-99-4	379718-00-0	379718-01-1	379718-02-2	379718-03-3
379718-04-4	379718-05-5	379718-06-6	379718-07-7	379718-08-8
379718-09-9	379718-10-2	379718-11-3	379718-12-4	379718-13-5
379718-14-6	379718-15-7	379718-16-8	379718-17-9	379718-18-0
379718-19-1	379718-20-4	379718-21-5	379718-22-6	379718-23-7
379718-24-8	379718-25-9	379718-26-0	379718-27-1	379718-28-2
379718-29-3	379718-30-6	379718-31-7	379718-32-8	379718-33-9
379718-34-0	379718-35-1	379718-36-2	379718-37-3	379718-38-4
379718-39-5	379718-40-8	379718-41-9	379718-42-0	379718-43-1
379718-44-2	379718-45-3	379718-46-4	379718-47-5	379718-48-6
379718-49-7	379718-50-0	379718-51-1	379718-52-2	379718-53-3
379718-54-4	379718-55-5	379718-56-6	379718-57-7	379718-58-8
379718-59-9	379718-60-2	379718-61-3	379718-62-4	379718-63-5
379718-64-6	379718-65-7	379718-66-8	379718-67-9	379718-68-0
379718-69-1	379718-70-4	379718-71-5	379718-72-6	379718-73-7
379718-74-8	379718-75-9	379718-76-0	379718-77-1	379718-78-2
379718-79-3	379718-80-6	379718-81-7	379718-82-8	379718-83-9
379718-84-0	379718-85-1	379718-86-2	379718-87-3	379718-88-4
379718-89-5	379718-90-8	379718-91-9	379718-92-0	379718-93-1
379718-94-2	379718-95-3	379718-96-4	379718-97-5	379718-98-6
379718-99-7	379719-00-3	379719-01-4	379719-02-5	379719-03-6
379719-04-7	379719-05-8	379719-06-9	379719-07-0	379719-08-1
379719-09-2	379719-10-5	379719-11-6	379719-12-7	379719-13-8
379719-14-9	379719-15-0	379719-16-1	379719-17-2	379719-18-3
379719-19-4	379719-20-7	379719-21-8	379719-22-9	379719-23-0
379719-24-1	379719-25-2	379719-26-3	379719-27-4	379719-28-5
379719-29-6	379719-30-9	379719-31-0	379719-32-1	379719-33-2
379719-34-3	379719-35-4	379719-36-5	379719-37-6	379719-38-7
379719-39-8	379719-40-1	379719-41-2	379719-42-3	379719-43-4
379719-44-5	379719-45-6	379719-46-7	379719-47-8	379719-48-9
379719-49-0	379719-50-3	379719-51-4	379719-52-5	379719-53-6
379719-54-7	379719-55-8	379719-56-9	379719-57-0	

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT	379719-58-1	379719-59-2	379719-60-5	379719-61-6	379719-62-7
	379719-63-8	379719-64-9	379719-65-0	379719-66-1	379719-67-2
	379719-68-3	379719-69-4	379719-70-7	379719-71-8	379719-72-9
	379719-73-0	379719-74-1	379719-75-2	379719-76-3	379719-77-4
	379719-78-5	379719-79-6	379719-80-9	379719-81-0	379719-82-1
	379719-83-2	379719-84-3	379719-85-4	379719-86-5	379719-87-6
	379719-88-7	379719-89-8	379719-90-1	379719-91-2	379719-92-3
	379719-93-4	379719-94-5	379719-95-6	379719-96-7	379719-97-8
	379719-98-9	379719-99-0	379720-00-0	379720-01-1	379720-02-2
	379720-03-3	379720-04-4	379720-05-5	379720-06-6	379720-07-7
	379720-08-8	379720-09-9	379720-10-2	379720-11-3	379720-12-4
	379720-13-5	379720-14-6	379720-15-7	379720-16-8	379720-17-9
	379720-18-0	379720-19-1	379720-20-4	379720-21-5	379720-22-6
	379720-23-7	379720-24-8	379720-25-9	379720-26-0	379720-27-1
	379720-28-2	379720-29-3	379720-30-6	379720-31-7	379720-32-8
	379720-33-9	379720-34-0	379720-35-1	379720-36-2	379720-37-3

379720-38-4	379720-39-5	379720-40-8	379720-41-9	379720-42-0
379720-43-1	379720-44-2	379720-45-3	379720-46-4	379720-47-5
379720-48-6	379720-49-7	379720-50-0	379720-51-1	379720-52-2
379720-53-3	379720-54-4	379720-55-5	379720-56-6	379720-57-7
379720-58-8	379720-59-9	379720-60-2	379720-61-3	379720-62-4
379720-63-5	379720-64-6	379720-65-7	379720-66-8	379720-67-9
379720-68-0	379720-69-1	379720-70-4	379720-71-5	379720-72-6
379720-73-7	379720-74-8	379720-75-9	379720-76-0	379720-77-1
379720-78-2	379720-79-3	379720-80-6	379720-81-7	379720-82-8
379720-83-9	379720-84-0	379720-85-1	379720-86-2	379720-87-3
379720-88-4	379720-89-5	379720-90-8	379720-91-9	379720-92-0
379720-93-1	379720-94-2	379720-95-3	379720-96-4	379720-97-5
379720-98-6	379720-99-7	379721-00-3	379721-01-4	379721-02-5
379721-03-6	379721-04-7	379721-05-8	379721-06-9	379721-07-0
379721-08-1	379721-09-2	379721-10-5	379721-11-6	379721-12-7
379721-13-8	379721-14-9	379721-15-0	379721-16-1	379721-17-2
379721-18-3	379721-19-4	379721-20-7	379721-21-8	379721-22-9
379721-23-0	379721-24-1	379721-25-2	379721-26-3	379721-27-4
379721-28-5	379721-29-6	379721-30-9	379721-31-0	379721-32-1
379721-33-2	379721-34-3	379721-35-4	379721-36-5	379721-37-6
379721-38-7	379721-39-8	379721-40-1	379721-41-2	379721-42-3
379721-43-4	379721-44-5	379721-45-6	379721-46-7	379721-47-8
379721-48-9	379721-49-0	379721-50-3	379721-54-7	379721-56-9
379721-59-2	379721-61-6	379721-64-9	379721-65-0	379721-67-2
379721-68-3	379721-69-4	379721-70-7	379721-71-8	379721-72-9
379721-73-0	379721-74-1	379721-75-2	379721-76-3	379721-77-4
379721-78-5	379721-79-6	379721-80-9	379721-81-0	379721-82-1
379721-83-2	379721-84-3	379721-85-4	379721-86-5	379721-87-6
379721-88-7	379721-89-8	379721-90-1	379721-91-2	379721-92-3
379721-93-4	379721-94-5	379721-95-6	379721-96-7	379721-98-9
379722-00-6	379722-02-8	379722-03-9	379722-04-0	379722-05-1

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

IT	379722-06-2	379722-07-3	379722-08-4	379722-09-5	379722-10-8
	379722-11-9	379722-12-0	379722-13-1	379722-14-2	379722-15-3
	379722-16-4	379722-17-5	379722-18-6	379722-19-7	379722-20-0
	379722-21-1	379722-22-2	379722-23-3	379722-24-4	379722-25-5
	379722-27-7	379722-28-8	379722-29-9	379722-30-2	379722-31-3
	379722-32-4	379722-33-5	379722-34-6	379722-35-7	379722-36-8
	379722-37-9	379722-38-0	379722-39-1	379722-40-4	379722-41-5
	379722-42-6	379722-43-7	379722-44-8	379722-45-9	379722-46-0
	379722-47-1	379722-48-2	379722-49-3	379722-50-6	379722-51-7
	379722-52-8	379722-53-9	379722-54-0	379722-55-1	379722-56-2
	379722-57-3	379722-58-4	379722-59-5	379722-60-8	379722-61-9
	379722-62-0	379722-63-1	379722-64-2	379722-65-3	379722-66-4
	379722-67-5	379722-68-6	379722-69-7	379722-70-0	379747-65-6
	380230-83-1	380230-84-2	380230-85-3	380230-93-3	380230-98-8
	380231-00-5	380231-03-8	380231-12-9	380305-19-1	380305-21-5
	380359-44-4	380359-54-6	380359-62-6	380359-66-0	380359-95-5
	380360-00-9	380360-08-7	380360-09-8	380360-12-3	380360-13-4
	380360-15-6	380360-74-7	380360-91-8	380360-99-6	380361-06-8
	380361-08-0	380361-10-4	380361-14-8		

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

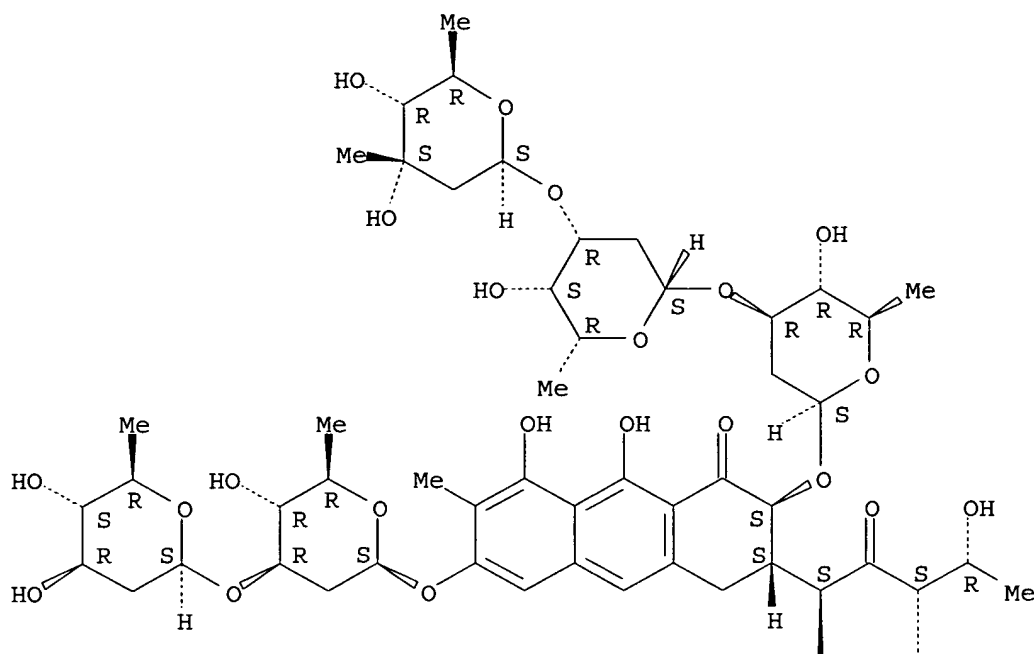
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)

- IT 50-18-0, Cyclophosphamide 50-24-8, Prednisolone 50-35-1, Thalidomide 50-76-0, Dactinomycin 50-91-9 51-18-3, Tretamine 51-21-8, Fluorouracil 51-75-2, Mechlorethamine 52-24-4, Thiotepa 53-03-2, Prednisone 53-79-2, Puromycin 54-42-2, Idoxuridine 55-98-1, Busulfan 57-22-7, Vincristine 59-05-2, Methotrexate 66-75-1, Uramustine 68-76-8, Triaziquone 126-85-2, Mechlorethamine oxide 127-07-1, Hydroxyurea 147-94-4, Cytarabine 148-82-3, Melphalan 154-42-7, Thioguanine 154-93-8, Carmustine 305-03-3, Chlorambucil 446-86-6, Azathioprine 488-41-5, Mitobronitol 576-68-1, Mannomustine 671-16-9, Procarbazine 865-21-4, Vinblastine 2022-85-7, 5-Fluorocytosine 2998-57-4, Estramustine 4342-03-4, Dacarbazine 4891-15-0, Estramustine phosphate 5536-17-4, Vidarabine 5581-52-2, Thiamiprine 7689-03-4, Camptothecin 9014-02-2, Zinostatin 11056-06-7, Bleomycin 13010-47-4, Lomustine 13494-90-1, Gallium nitrate 13909-09-6, Semustine 15663-27-1, Cisplatin 17902-23-7, Tegafor **18378-89-7**, Mithramycin 18883-66-4, Streptozotocin **20830-81-3**, Daunorubicin 23214-92-8, Doxorubicin 24280-93-1, Mycophenolic acid **25316-40-9**, Adriamycin 29767-20-2, Teniposide 31430-18-9, Nocodazole 31441-78-8, Mercaptopurine 33069-62-4, Paclitaxel 33419-42-0, Etoposide 41575-94-4, Carboplatin 53643-48-4, Vindesine 53714-56-0, Leuprolide 61825-94-3, Oxaliplatin 69839-83-4, Didox 73105-03-0, Pentamustine 74790-08-2, Spiroplatin 82410-32-0, Ganciclovir 97919-22-7 109837-67-4, Cycloplatam 111490-36-9, Zeniplatin 129731-10-8, Vorozole 135558-11-1, Lobaplatin
- RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 71-44-3, Spermine 124-20-9, Spermidine 4537-77-3, Dipalmitoyl phosphatidyl glycerol 7439-95-4, Magnesium, biological studies 24937-47-1, Polyarginine 24937-49-3, Polyornithine 25104-12-5, Polyornithine 25104-18-1, Polylysine 25212-18-4, Polyarginine 26062-48-6, Polyhistidine 26854-81-9, Polyhistidine 38000-06-5, Polylysine
- RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
- (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 4537-76-2, Distearoylphosphatidyl ethanolamine
- RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
- (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 25322-68-3, Polyethyleneglycol
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 9002-06-6, Thymidine kinase
- RL: BSU (Biological study, unclassified); BIOL (Biological study) (gene encoding HSV; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 83869-56-1, Gmcsf 86090-08-6, Angiostatin 187888-07-9, Endostatin
- RL: BSU (Biological study, unclassified); BIOL (Biological study)

- (gene encoding; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 79955-99-0, Stromelysin 80449-02-1, **Protein** tyrosine kinase
 120178-12-3, Telomerase 141436-78-4, **Protein** kinase C
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 9031-14-5, Lecithin cholesterol acyltransferase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (**peptides**; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 381164-82-5 381263-75-8 381263-76-9
 RL: PRP (Properties)
 (unclaimed **protein** sequence; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 92662-83-4 161007-71-2 177714-50-0 198475-73-9 247040-78-4
 381164-79-0 381164-80-3 381164-81-4 381164-83-6
 RL: PRP (Properties)
 (unclaimed sequence; encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- IT 18378-89-7, Mithramycin 20830-81-3, Daunorubicin
 25316-40-9, Adriamycin
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic **peptide conjugates** into targeted liposome complexes)
- RN 18378-89-7 HCAPLUS
- CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-β-D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl-β-D-ribo-hexopyranosyl-(1→3)-O-2,6-dideoxy-β-D-lyxo-hexopyranosyl-(1→3)-2,6-dideoxy-β-D-arabino-hexopyranosyl)oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



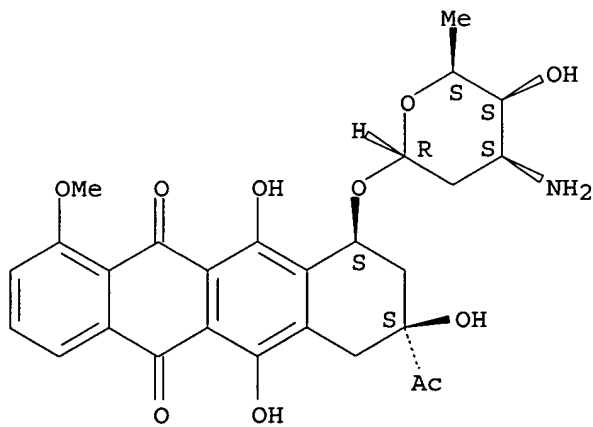
PAGE 2-A



RN 20830-81-3 HCAPLUS

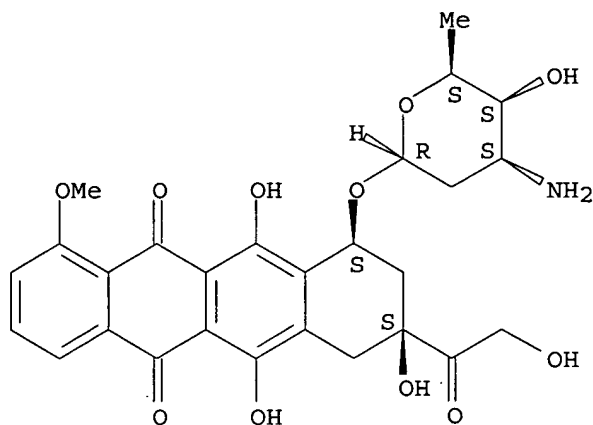
CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 25316-40-9 HCAPLUS
 CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242, ANSWER 26 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:731094 HCAPLUS

DOCUMENT NUMBER: 135:285352

TITLE: Compositions and methods using GCC for identifying and targeting cancer cells of alimentary canal origin

INVENTOR(S): Waldman, Scott A.; Park, Jason; Schulz, Stephanie

PATENT ASSIGNEE(S): Thomas Jefferson University, USA

SOURCE: PCT Int. Appl., 89 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001073132	A1	20011004	WO 2001-US9790	20010327 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2404431	AA	20011004	CA 2001-2404431	20010327 <--
AU 2001049504	A5	20011008	AU 2001-49504	20010327 <--
US 2001029019	A1	20011011	US 2001-819249	20010327 <--
US 6767704	B2	20040727		
US 2001029020	A1	20011011	US 2001-819254	20010327 <--

US 2001036635	A1	20011101	US 2001-819247	20010327 <--
US 2001039016	A1	20011108	US 2001-819248	20010327 <--
US 2001039017	A1	20011108	US 2001-819252	20010327 <--
US 6844153	B2	20050118		
US 2002012931	A1	20020131	US 2001-820215	20010327 <--
EP 1272665	A1	20030108	EP 2001-922739	20010327 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528628	T2	20030930	JP 2001-570845	20010327 <--
US 2004033520	A1	20040219	US 2003-428225	20030502 <--
US 2005059008	A1	20050317	US 2003-611533	20030630 <--
US 2004224355	A1	20041111	US 2004-866951	20040614 <--
US 2005164267	A1	20050728	US 2005-36875	20050114 <--
US 2005196793	A1	20050908	US 2005-58778	20050216 <--
PRIORITY APPLN. INFO.:			US 2000-192229P	P 20000327 <--
			US 2001-819247	B1 20010327
			US 2001-819249	A3 20010327
			US 2001-819252	A3 20010327
			US 2001-819254	B1 20010327
			WO 2001-US9790	W 20010327
			US 2005-36875	A1 20050114
ED	Entered STN: 07 Oct 2001			
AB	Screening and diagnostic reagents, kits and methods for primary and/or metastatic stomach or esophageal cancer are disclosed. Compns. for and methods of imaging and treating primary and/or metastatic stomach or esophageal cancer are disclosed. Vaccines compns. and methods for treating and preventing primary and/or metastatic stomach or esophageal cancer are disclosed. GCC or its gene transcript is determined by immunoassay or by PCR.			
IC	ICM C12Q001-68			
CC	ICS G01N033-53; G01N033-574; A61K039-00; A61K039-38			
	9-10 (Biochemical Methods)			
	Section cross-reference(s): 1, 3, 14, 15			
IT	Abrins			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (A, conjugates with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)			
IT	Ricins			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (A, conjugates , with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)			
IT	Glycoproteins, specific or class			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (CVF (cobra venom factor), conjugates with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)			
IT	Toxins			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ML-I (mistletoe lectin I), conjugates with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)			
IT	Proteins, specific or class			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (PAP (pokeweed antiviral protein), conjugates with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)			
IT	Protein receptors			
	RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study,			

unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(ST; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Blood analysis

Drug targeting

Imaging

Immunoassay

PCR (polymerase chain reaction)

Radiography

Radiotherapy

Stomach, neoplasm

Test kits

Vaccines

(compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Primers (**nucleic acid**)

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Ligands

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugated**, for ST receptor, with drugs; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Abrins

Ricins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(diphtheria, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Pseudomonas

(exotoxin of, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(exotoxins, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Clostridium perfringens

(phospholipase C of, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT Protamines

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(purothionins, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT **Proteins, specific or class**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

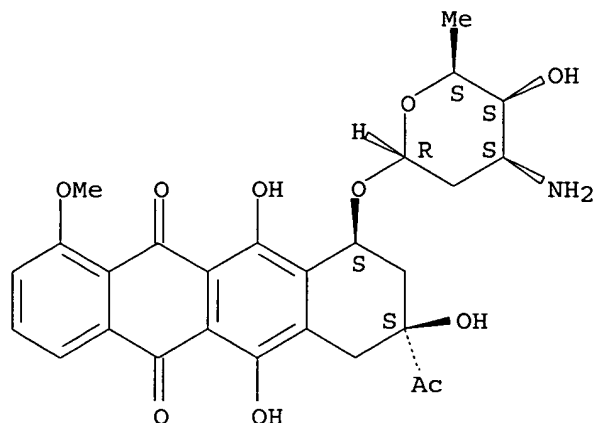
(saporins, **conjugates** with ST receptor ligand; compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)

IT 9001-99-4D, Ribonuclease, **conjugates** with ST receptor ligand
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (bovine pancreatic; compns. and methods using GCC for identifying and
 targeting cancer cells of alimentary canal origin)

IT 10043-66-0D, 131I, **conjugates** with ST receptor ligand,
 biological studies 10098-91-6D, 90Y, **conjugates** with ST
 receptor ligand, biological studies 13981-50-5D, 57Co,
conjugates with ST receptor ligand, biological studies
 13981-51-6D, 197Hg, **conjugates** with ST receptor ligand,
 biological studies 14093-04-0D, 52Fe, **conjugates** with ST
 receptor ligand, biological studies 14119-09-6D, 67Ga,
conjugates with ST receptor ligand, biological studies
 14119-24-5D, 191Os, **conjugates** with ST receptor ligand,
 biological studies 14158-31-7D, 125I, **conjugates** with ST
 receptor ligand, biological studies 14265-75-9D, 177Lu,
conjugates with ST receptor ligand, biological studies
 14374-81-3D, Germanium-71, **conjugates** with ST receptor ligand,
 biological studies 14378-26-8D, 188Re, **conjugates** with ST
 receptor ligand, biological studies 14391-11-8D, 199Au,
conjugates with ST receptor ligand, biological studies
 14391-19-6D, 161Tb, **conjugates** with ST receptor ligand,
 biological studies 14391-96-9D, 47Sc, **conjugates** with ST
 receptor ligand, biological studies 14596-37-3D, 32P, **conjugates**
 with ST receptor ligand, biological studies 14683-06-8D, 121Sn,
conjugates with ST receptor ligand, biological studies
 14683-16-0D, 132I, **conjugates** with ST receptor ligand,
 biological studies 14687-25-3D, 203Pb, **conjugates** with ST
 receptor ligand, biological studies 14687-61-7D, 77As,
conjugates with ST receptor ligand, biological studies
 14903-02-7D, 43K, **conjugates** with ST receptor ligand, biological
 studies 14913-49-6D, 212Bi, **conjugates** with ST receptor
 ligand, biological studies 14913-89-4D, 105Rh, **conjugates** with
 ST receptor ligand, biological studies 14914-68-2D, 119Sb,
conjugates with ST receptor ligand, biological studies
 14914-76-2D, 131Cs, **conjugates** with ST receptor ligand,
 biological studies 14967-68-1D, 103Pd, **conjugates** with ST
 receptor ligand, biological studies 14981-64-7D, 109Pd,
conjugates with ST receptor ligand, biological studies
 14981-79-4D, 143Pr, **conjugates** with ST receptor ligand,
 biological studies 14998-63-1D, 186Re, **conjugates** with ST
 receptor ligand, biological studies 15047-05-9D, 129Cs,
conjugates with ST receptor ligand, biological studies
 15092-94-1D, 212Pb, **conjugates** with ST receptor ligand,
 biological studies 15715-08-9D, 123I, **conjugates** with ST
 receptor ligand, biological studies 15720-35-1D, 127Cs,
conjugates with ST receptor ligand, biological studies
 15749-66-3D, 33P, **conjugates** with ST receptor ligand, biological
 studies 15750-15-9D, 111In, **conjugates** with ST receptor
 ligand, biological studies 15755-39-2D, 211At, **conjugates** with
 ST receptor ligand, biological studies 15757-14-9D, 68Ga,
conjugates with ST receptor ligand, biological studies
 15757-86-5D, 67Cu, **conjugates** with ST receptor ligand,
 biological studies 15760-04-0D, Silver-111, **conjugates** with ST
 receptor ligand, biological studies 15765-39-6D, 77Br,
conjugates with ST receptor ligand, biological studies
 15776-19-9D, 206Bi, **conjugates** with ST receptor ligand,
 biological studies 18268-34-3D, 81Rb, **conjugates** with ST
 receptor ligand, biological studies
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
 study); BIOL (Biological study); USES (Uses)

- (compns. and methods using GCC for identifying and targeting cancer cells of alimentary canal origin)
- IT 51-21-8D, 5-Fluorouracil, **conjugates** with ST receptor ligand
 59-05-2D, Methotrexate, **conjugates** with ST receptor ligand
 68-76-8D, Trenimon, derivs., **conjugates** with ST receptor ligand
 106-51-4D, 1,4-Benzoquinone, derivs., **conjugates** with ST
 receptor ligand 147-94-4D, Cytosine arabinoside, **conjugates**
 with ST receptor ligand 148-82-3D, Melphalan, **conjugates** with
 ST receptor ligand 305-03-3D, Chlorambucil, **conjugates** with ST
 receptor ligand 443-48-1D, Metronidazole, **conjugates** with ST
 receptor ligand 1404-00-8D, Mitomycin, **conjugates** with ST
 receptor ligand 9001-78-9D, **conjugates** with ST receptor ligand
 9001-86-9D, Phospholipase C, **conjugates** with ST receptor ligand
 11056-06-7D, Bleomycin, **conjugates** with ST receptor ligand
 12634-34-3D, Macromomycin, **conjugates** with ST receptor ligand
 13551-87-6D, Misonidazole, **conjugates** with ST receptor ligand
 15663-27-1D, cis-Platinum, **conjugates** with ST receptor ligand
20830-81-3D, Daunorubicin, **conjugates** with ST receptor
 ligand 23214-92-8D, Doxorubicin, **conjugates** with ST receptor
 ligand 33419-42-0D, Etoposide, **conjugates** with ST receptor
 ligand 36877-68-6D, Nitroimidazole, **conjugates** with ST
 receptor ligand 53643-48-4D, Vindesine, **conjugates** with ST
 receptor ligand 65988-88-7D, Modeccin, **conjugates** with ST
 receptor ligand 75037-46-6D, Gelonin, **conjugates** with ST
 receptor ligand 91933-11-8D, Volkensin, **conjugates** with ST
 receptor ligand
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (compns. and methods using GCC for identifying and targeting cancer
 cells of alimentary canal origin)
- IT 13982-64-4D, 87Sr, **conjugates** with ST receptor ligand,
 biological studies 14133-76-7D, 99Tc, **conjugates** with ST
 receptor ligand, biological studies 14885-78-0D, 113In,
conjugates with ST receptor ligand, biological studies
 15678-91-8D, 81Kr, **conjugates** with ST receptor ligand,
 biological studies 15735-70-3D, 193Pt, **conjugates** with ST
 receptor ligand, biological studies
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
 study); BIOL (Biological study); USES (Uses)
 (metastable; compns. and methods using GCC for identifying and
 targeting cancer cells of alimentary canal origin)
- IT 141003-66-9, GenBank S57551
 RL: PRP (Properties)
 (unclaimed **nucleotide** sequence; compns. and methods using GCC
 for identifying and targeting cancer cells of alimentary canal origin)
- IT 199619-48-2
 RL: PRP (Properties)
 (unclaimed **protein** sequence; compns. and methods using GCC
 for identifying and targeting cancer cells of alimentary canal origin)
- IT **20830-81-3D**, Daunorubicin, **conjugates** with ST receptor
 ligand
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (compns. and methods using GCC for identifying and targeting cancer
 cells of alimentary canal origin)
- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 27 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:730928 HCAPLUS

DOCUMENT NUMBER: 135:267221

TITLE: Bladder cancer-specific **peptides** for diagnosis and therapy

INVENTOR(S): Frangioni, John V.; Cantley, Lewis C.; O'Donnell, Michael A.

PATENT ASSIGNEE(S): Beth Israel Deaconess Medical Center, USA

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001072958	A2	20011004	WO 2001-US10116	20010328 <--
WO 2001072958	A3	20020321		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001049608	A5	20011008	AU 2001-49608	20010328 <--
PRIORITY APPLN. INFO.:			US 2000-192505P	P 20000328 <--
			WO 2001-US10116	W 20010328

ED Entered STN: 07 Oct 2001

AB **Peptides** are disclosed which selectively bind to bladder tumor cells relative to normal (untransformed) bladder cells, also referred to herein as Bladder Tumor Cell-Specific (BTCS) **peptides** or BTCS binding sequence. The **peptides** may be conjugated to e.g. cytotoxic agents or imaging agents.

IC ICM C12N

CC 1-6 (Pharmacology)

Section cross-reference(s): 8, 9, 63

ST bladder tumor specific **peptide** therapy diagnosis; imaging agent
peptide conjugate bladder tumor diagnosis; cytotoxic
agent **peptide conjugate** bladder tumor therapy

IT Glycoproteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(CVF (cobra venom factor), **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(ML-I (mistletoe lectin I), **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Imaging agents
(NMR contrast, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(PAP (pokeweed antiviral **protein**), **peptide
conjugates**; bladder cancer-specific **peptides** for
diagnosis and therapy)

IT Imaging agents
(acoustic, microbubble, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Adeno-associated virus
(adeno-associated viral particle; bladder cancer-specific **peptides**
for diagnosis and therapy)

IT Adenoviridae
(adenoviral particle; bladder cancer-specific **peptides** for
diagnosis and therapy)

IT Adrenal cortex
(adrenocortical suppressants, **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Intercalation
(agents, DNA, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Light scattering
(agents, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Sulfonates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(alkanesulfonates, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Abrins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(and abrin A chain, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Fluorescent substances
(and near IR fluorophores, **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Polyelectrolytes
(anionic, **peptide conjugates**; bladder

- cancer-specific **peptides** for diagnosis and therapy)
- IT Hormones, animal, biological studies
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (antagonists, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Estrogens
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (antiestrogens, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT **Drug delivery systems**
 - Imaging agents
 - Peptidomimetics**
 - (bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Fusion **proteins** (chimeric **proteins**)
 - Peptides**, biological studies
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Antitumor agents
 - (bladder carcinoma; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Pancreas
 - (bovine pancreatic RNase, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Bladder
 - (carcinoma, inhibitors; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Polyelectrolytes
 - (cationic, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Paramagnetic materials
 - (chelates, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT **Proteins**, specific or class
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (coat, chimeric; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Colloids
 - (colloidal particles, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Enzymes, biological studies
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (**conjugates**, with **peptides**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT **Peptides**, biological studies
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (**conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)
- IT Toxins
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (diphtheria, **peptide conjugates**; bladder

cancer-specific **peptides** for diagnosis and therapy)

IT Pseudomonas
(exotoxin, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(exotoxins, Pseudomonas, **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT **Proteins**, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fiber knob **protein**; bladder cancer-specific **peptides**
for diagnosis and therapy)

IT Apoptosis
(inducers, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT DNA formation
Ribosome
(inhibitors, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(intercalators, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Optical reflection
(light reflecting agents, **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Optical absorption
(light-absorbing agents, **peptide conjugates**;
bladder cancer-specific **peptides** for diagnosis and therapy)

IT Cytolysis
(lytic agents, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Metabolism
(metabolites, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Bubbles
(microbubbles, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT **Spheres**
(nanospheres, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT IR radiation
(near-IR, fluorophores, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Bladder
(neoplasm; bladder cancer-specific **peptides** for diagnosis and
therapy)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(neurotoxins, **peptide conjugates**; bladder
cancer-specific **peptides** for diagnosis and therapy)

IT Chloramines

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nitrogen mustards, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Alkylating agents, biological

Antibiotics

Chelating agents

Cytotoxic agents

Liposomes

Mycobacterium BCG

(**peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Androgens

Chelates

Corticosteroids, biological studies

Estrogens

Hormones, animal, biological studies

Metals, biological studies

Polymers, biological studies

Progestogens

Rare earth metals, biological studies

Ricins

Taxanes

Toxins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT **Nucleic acids**

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**peptide-encoding**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Membrane, biological

(permeability modifiers, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Biological transport

(permeation, membrane permeability modifiers, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Clostridium perfringens

(phospholipase C, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Proliferation inhibition

(proliferation inhibitors, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT **Proteins, general, biological studies**

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(**protein production inhibitors**, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Radionuclides, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(radiometals, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(saporins, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT RNA

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(synthesis inhibitors, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Alkaloids, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vinca, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT Virus

(viral particle; bladder cancer-specific **peptides** for diagnosis and therapy)

IT 9001-86-9, Phospholipase C

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Clostridium perfringens, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT 364038-48-2 364038-49-3 364038-50-6 364038-51-7 364038-52-8

364038-53-9 364038-54-0 364038-55-1 364038-56-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bladder cancer-specific **peptides** for diagnosis and therapy)

IT 50-18-0D, Cyclophosphamide, **peptide conjugates**

50-44-2D, Mercaptopurine, **peptide conjugates**

50-76-0D, Dactinomycin, **peptide conjugates** 51-21-8D,

Fluorouracil, **peptide conjugates** 51-75-2D,

Mechlorethamine, **peptide conjugates** 52-24-4D,

Thiotepa, **peptide conjugates** 53-03-2D, Prednisone,

peptide conjugates 53-19-0D, Mitotane, **peptide**

conjugates 53-79-2D, Puromycin, **peptide**

conjugates 55-98-1D, Busulfan, **peptide**

conjugates 56-53-1D, Diethylstilbestrol, **peptide**

conjugates 57-13-6D, Urea, derivs., **peptide**

conjugates, biological studies 57-22-7D, Vincristine,

peptide conjugates 57-63-6D, Ethinyl estradiol,

peptide conjugates 57-85-2D, Testosterone propionate,

peptide conjugates 59-05-2D, Methotrexate,

peptide conjugates 59-30-3D, Folic acid, analogs,

peptide conjugates 60-34-4D, Methylhydrazine, derivs.,

peptide conjugates 66-75-1D, Uracil mustard,

peptide conjugates 66-81-9D, Cycloheximide,

peptide conjugates 71-58-9D, Medroprogesterone

acetate, **peptide conjugates** 76-43-7D,

Fluoxymesterone, **peptide conjugates** 120-73-0D,

Purine, analogs, **peptide conjugates** 127-07-1D,

Hydroxyurea, **peptide conjugates** 147-94-4D,

Cytarabine, **peptide conjugates** 148-82-3D, Melphalan,

peptide conjugates 151-56-4D, Ethylenimine, derivs.,

peptide conjugates 154-42-7D, Thioguanine,

peptide conjugates 154-93-8D, Carmustine,

peptide conjugates 289-95-2D, Pyrimidine, analogs,

peptide conjugates 305-03-3D, Chlorambucil,

peptide conjugates 595-33-5D, Megestrol acetate,
 peptide conjugates 630-56-8D, Hydroxyprogesterone
 caproate, peptide conjugates 671-16-9D,
 Procarbazine, peptide conjugates 865-21-4D,
 Vinblastine, peptide conjugates 1404-00-8D,
 Mitomycin, peptide conjugates 2169-64-4D, Azaribine,
 peptide conjugates 4342-03-4D, Dacarbazine,
 peptide conjugates 7440-06-4D, Platinum, coordination
 complexes, peptide conjugates, biological studies
 9001-99-4D, Ribonuclease, peptide conjugates
 9015-68-3D, L-Asparaginase, peptide conjugates
 10043-49-9D, gold-198, chelates, peptide
 conjugates, biological studies 10043-66-0D, iodine-131,
 chelates, peptide conjugates, biological studies
 10098-91-6D, yttrium-90, chelates, peptide conjugates,
 biological studies 10540-29-1D, Tamoxifen, peptide
 conjugates 11056-06-7D, Bleomycin, peptide
 conjugates 13010-20-3D, Nitrosourea, derivs., peptide
 conjugates 13010-47-4D, Lomustine, peptide
 conjugates 13909-09-6D, Semustine, peptide
 conjugates 13967-65-2D, holmium-166, chelates, peptide
 conjugates, biological studies 13981-25-4D, copper-64, chelates,
 peptide conjugates, biological studies 13981-50-5D,
 cobalt-57, chelates, peptide conjugates, biological
 studies 13981-51-6D, mercury-197, chelates, peptide
 conjugates, biological studies 14093-04-0D, iron-52, chelates,
 peptide conjugates, biological studies 14119-09-6D,
 gallium-67, chelates, peptide conjugates, biological
 studies 14119-24-5D, osmium-191, chelates, peptide
 conjugates, biological studies 14133-76-7D, technetium-99,
 chelates, peptide conjugates, biological studies
 14158-31-7D, iodine-125, chelates, peptide conjugates,
 biological studies 14158-35-1D, iridium-194, chelates, peptide
 conjugates, biological studies 14265-75-9D, lutetium-177,
 chelates, peptide conjugates, biological studies
 14374-81-3D, germanium-71, chelates, peptide conjugates
 , biological studies 14378-26-8D, rhenium-188, chelates, peptide
 conjugates, biological studies 14378-53-1D, rhodium-101,
 chelates, peptide conjugates, biological studies
 14391-11-8D, gold-199, chelates, peptide
 conjugates, biological studies 14391-19-6D, terbium-161,
 chelates, peptide conjugates, biological studies
 14391-96-9D, scandium-47, chelates, peptide conjugates
 , biological studies 14596-37-3D, phosphorus-32, chelates,
 peptide conjugates, biological studies 14683-06-8D,
 tin-121, chelates, peptide conjugates, biological
 studies 14687-25-3D, lead-203, chelates, peptide
 conjugates, biological studies 14687-61-7D, arsenic-77,
 chelates, peptide conjugates, biological studies
 14809-47-3D, bromine-75, chelates, peptide conjugates,
 biological studies 14885-78-0D, indium-113, chelates, peptide
 conjugates, biological studies 14903-02-7D, potassium-43,
 chelates, peptide conjugates, biological studies
 14913-49-6D, bismuth-212, chelates, peptide conjugates
 , biological studies 14913-89-4D, chelates, peptide
 conjugates, biological studies 14914-68-2D, antimony-119,
 chelates, peptide conjugates, biological studies
 14914-76-2D, cesium-131, chelates, peptide conjugates,
 biological studies 14967-68-1D, palladium-103, chelates, peptide
 conjugates, biological studies 14981-64-7D, palladium-109,

chelates, **peptide conjugates**, biological studies
 14981-79-4D, praseodymium-143, chelates, **peptide
 conjugates**, biological studies 14998-63-1D, rhenium-186,
 chelates, **peptide conjugates**, biological studies
 15047-05-9D, cesium-129, chelates, **peptide conjugates**,
 biological studies 15056-34-5D, Triazene, derivs., **peptide
 conjugates** 15092-94-1D, lead-212, chelates, **peptide
 conjugates**, biological studies 15663-27-1D, Cisplatin,
peptide conjugates 15690-69-4D, palladium-100,
 chelates, **peptide conjugates**, biological studies
 15715-08-9D, iodine-123, chelates, **peptide conjugates**,
 biological studies 15720-35-1D, cesium-127, chelates, **peptide
 conjugates**, biological studies 15735-70-3D, platinum-193,
 chelates, **peptide conjugates**, biological studies
 15741-25-0D, barium-128, chelates, **peptide conjugates**,
 biological studies 15749-66-3D, phosphorus-33, chelates, **peptide
 conjugates**, biological studies 15750-15-9D, indium-111,
 chelates, **peptide conjugates**, biological studies
 15755-39-2D, astatine-211, chelates, **peptide conjugates**
 , biological studies 15757-14-9D, gallium-68, chelates, **peptide
 conjugates**, biological studies 15757-86-5D, copper-67, chelates,
peptide conjugates, biological studies 15758-35-7D,
 ruthenium-97, chelates, **peptide conjugates**, biological
 studies 15760-04-0D, silver-111, chelates, **peptide
 conjugates**, biological studies 15765-38-5D, bromine-76,
 chelates, **peptide conjugates**, biological studies
 15765-39-6D, bromine-77, chelates, **peptide conjugates**,
 biological studies 15765-78-3D, rhenium-189, chelates, **peptide
 conjugates**, biological studies 15766-00-4D, samarium-153,
 chelates, **peptide conjugates**, biological studies
 15776-20-2D, bismuth-213, chelates, **peptide conjugates**
 , biological studies 18268-34-3D, rubidium-81, chelates, **peptide
 conjugates**, biological studies 18378-89-7D, Mithramycin,
peptide conjugates 18883-66-4D, Streptozocin,
peptide conjugates 20830-81-3D, Daunorubicin,
peptide conjugates 23214-92-8D, Doxorubicin,
peptide conjugates 33069-62-4D, Paclitaxel,
peptide conjugates 51632-96-3D, europium-169,
 chelates, **peptide conjugates**, biological studies
 65988-88-7D, Modeccin, **peptide conjugates**
 75037-46-6D, Gelonin, **peptide conjugates**
 91933-11-8D, Volkensin, **peptide conjugates**
 114977-28-5D, Docetaxel, **peptide conjugates**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bladder cancer-specific **peptides** for diagnosis and therapy)

IT 13982-64-4, strontium-87, biological studies 15678-91-8, krypton-81, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(metastable, chelates, **peptide conjugates**; bladder cancer-specific **peptides** for diagnosis and therapy)

IT 1332-37-2, Iron oxide, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(monocryst. nanocompds., **peptide conjugates**;
 bladder cancer-specific **peptides** for diagnosis and therapy)

IT 12585-85-2, Positron
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (positron-emitting nuclei, **peptide conjugates**;
 bladder cancer-specific **peptides** for diagnosis and therapy)

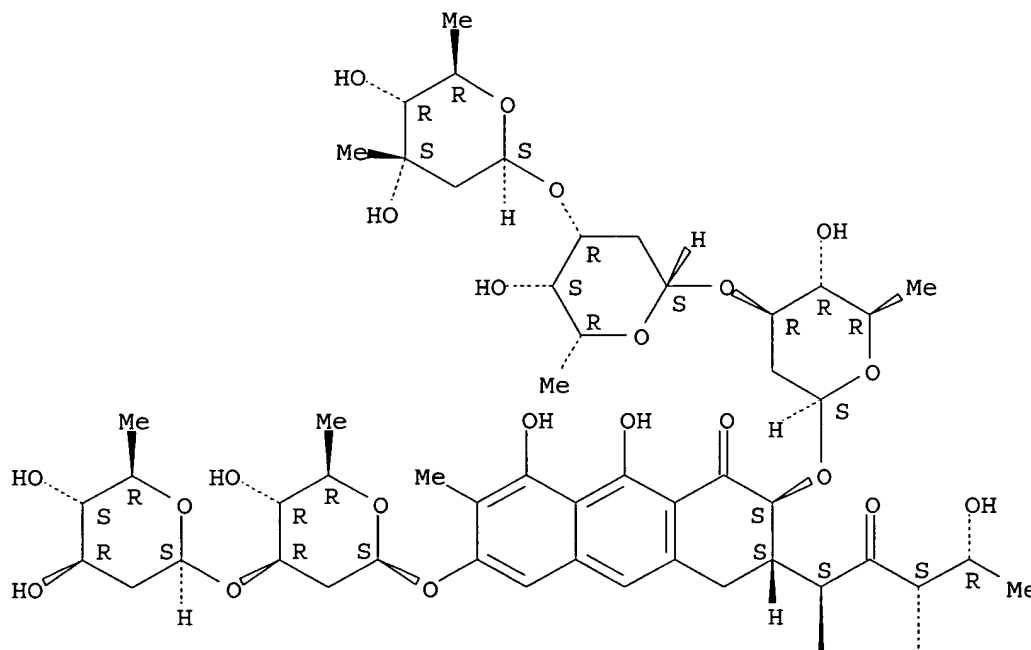
IT 18378-89-7D, Mithramycin, **peptide conjugates**
 20830-81-3D, Daunorubicin, **peptide conjugates**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (bladder cancer-specific **peptides** for diagnosis and therapy)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-β-D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl-β-D-ribo-hexopyranosyl-(1→3)-O-2,6-dideoxy-β-D-lyxo-hexopyranosyl-(1→3)-2,6-dideoxy-β-D-arabino-hexopyranosyl)oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



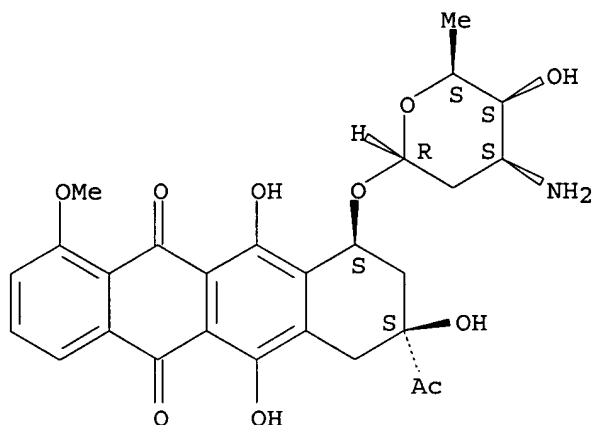
PAGE 2-A



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 28 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:635933 HCAPLUS
 DOCUMENT NUMBER: 135:215973
 TITLE: Use of **peptide conjugates** for enhancing drug delivery across biological membranes and tissues
 INVENTOR(S): Rothbard, Jonathan B.; Wender, Paul A.
 PATENT ASSIGNEE(S): Cellgate, Inc., USA
 SOURCE: PCT Int. Appl., 54 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001062297	A1	20010830	WO 2001-US4459	20010209 <--
WO 2001062297	C2	20030109		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002009491	A1	20020124	US 2001-779693	20010207 <--
CA 2400099	AA	20010830	CA 2001-2400099	20010209 <--
EP 1263469	A1	20021211	EP 2001-909135	20010209 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003523982	T2	20030812	JP 2001-561360	20010209 <--
PRIORITY APPLN. INFO.:				
			US 2000-182166P	P 20000214 <--
			US 2001-779693	A 20010207
			WO 2001-US4459	W 20010209

ED Entered STN: 31 Aug 2001

AB This invention provides compns. and methods for enhancing delivery of drugs and other agents across a biol. barrier, including epithelial

tissues such as the skin, gastrointestinal tract, pulmonary epithelium, and the like. The compns. and methods are also useful for delivery across endothelial tissues, including the blood brain barrier. The compns. and methods employ a delivery enhancing transporter that has sufficient guanidino or amidino sidechain moieties to enhance delivery of a compound across one or more layers of the tissue, compared to the non-conjugated compound. The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 50 residues in length. Taxol conjugates with a heptamer of arginine was soluble in water in contrast with taxol itself. The conjugate was equally potent when assayed for biol. activity using standard cytotoxicity assay.

- IC ICM A61K047-42
- ICS A61K047-48
- CC 63-5 (Pharmaceuticals)
- Section cross-reference(s): 1
- ST **peptide conjugate** biol membrane permeation enhancer
- IT Intestine, disease
 - (Crohn's; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Antihistamines
 - (H2; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Nose
 - (allergic rhinitis; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Nervous system
 - (central; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Lung, disease
 - (chronic obstructive; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT **Peptides, biological studies**
- Polymers, biological studies
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (**conjugates**; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Imaging agents
 - (contrast; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Nervous system
 - (degeneration; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Mental disorder
 - (depression; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Blood vessel
 - (endothelium; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Skin
 - (epidermis; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Antibiotics
 - (macrolide; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Headache
 - (migraine; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Ulcer

(peptic; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Proliferation inhibition
(proliferation inhibitors; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Disease, animal
(proliferative; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Antibiotics
(quinolone; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Skin
(stratum corneum; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT **Drug delivery systems**
(tapes; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Injury
(trauma; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Digestive tract
(ulcer; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Intestine, disease
(ulcerative colitis; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT AIDS (disease)
Alzheimer's disease
Analgesics
Antibacterial agents
Antiviral agents
Asthma
Biological transport
Blood-brain barrier
Cystic fibrosis
Epilepsy
Epithelium
Fungicides
Helicobacter pylori
Immunosuppressants
Infection
Ischemia
Membrane, biological
Multiple sclerosis
Neoplasm
Pain
Parkinson's disease
Permeation enhancers
Schizophrenia
Skin
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Corticosteroids, biological studies
Hormones, animal, biological studies
Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)

IT Alkaloids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (vinca; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT Lactones
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(β -lactones; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 9073-60-3, β -Lactamase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 9000-83-3, ATPase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(proton potassium; use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 24937-47-1DP, Polyarginine, **conjugates** with organic acids
25212-18-4DP, Polyarginine, **conjugates** with organic acids
33069-62-4DP, Taxol, **conjugates** polyarginine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 614-75-5, O-Hydroxyphenylacetic acid 990-91-0, Tetrabenzyl pyrophosphate
7697-37-2, Nitric acid, reactions 18162-48-6 24937-47-1, Poly-arginine
25212-18-4, Poly-arginine
RL: RCT (Reactant); RACT (Reactant or reagent)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 51794-07-1P, 2-Hydroxy-5-nitrophenylacetic acid 104333-07-5P
104333-08-6P 357398-97-1P 357398-98-2P 357398-99-3P 357399-00-9P
357399-01-0P 357399-03-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 33069-62-4, Paclitaxel
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 357399-04-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of **peptide conjugates** for enhancing drug delivery across biol. membranes and tissues)
- IT 50-18-0, Cyclophosphamide 50-36-2, Cocaine 50-44-2, 6-Mercaptopurine
50-76-0, Dactinomycin 51-05-8, Novocaine 51-21-8, 5-Fluorouracil
54-42-2, Idoxuridine 55-86-7, Mechlorethamine hydrochloride 59-05-2, Methotrexate 59-46-1, Procaine 60-54-8, Tetracycline 64-86-8, Colchicine 65-45-2, Salicylamide 66-79-5, Oxacillin 69-53-4, Ampicillin 70-00-8, Trifluridine 80-08-0, Dapsone 94-09-7, Benzocaine 94-24-6, Tetracaine 96-88-8, Mepivacaine 100-33-4, Pentamidine 114-07-8, Erythromycin 126-07-8, Griseofulvin 127-07-1, Hydroxyurea 137-58-6, Lidocaine 147-52-4, Nafcillin 147-94-4, Cytarabine 154-42-7, 6-Thioguanine 154-93-8, Carmustine 446-86-6, Azathioprine 499-67-2, Proparacaine 599-79-1, Sulfasalazine 671-16-9, Procarbazine 721-50-6, Prilocaine 865-21-4, Vinblastine 1400-61-9, Nystatin 1403-66-3, Gentamycin 1404-00-8, Mitomycin 1404-90-6, Vancomycin 1406-05-9, Penicillin 3056-17-5, Stavudine 4342-03-4, Dacarbazine 4428-95-9, Foscarnet 7481-89-2,

Zalcitabine 9004-10-8, Insulin, biological studies 9007-12-9,
Calcitonin 10118-90-8, Minocycline 11000-17-2, Vasopressin
11056-06-7, Bleomycin 11111-12-9, Cephalosporin 12633-72-6,
Amphotericin 13292-46-1, Rifampin 13392-28-4, Rimantadine
15663-27-1, Cisplatin 16110-51-3, Cromolyn 20830-81-3,
Daunorubicin 21679-14-1, Fludarabine 22916-47-8, Miconazole
23214-92-8, Doxorubicin 23593-75-1, Clotrimazole 26787-78-0,
Amoxycillin 27220-47-9, Econazole 29342-05-0, Ciclopirox 29767-20-2,
Teniposide 30516-87-1, Zidovudine 33419-42-0, Etoposide 36637-18-0,
Etidocaine 36791-04-5, Ribavirin 38396-39-3, Bupivacaine 53910-25-1,
Pentostatin 58822-25-6, Leucine enkephalin 59277-89-3, Acyclovir
63527-52-6, Cefotaxime 65271-80-9, Mitoxantrone 65277-42-1,
Ketoconazole 65472-88-0, Naftifine 69049-73-6, Nedocromil
69655-05-6, Didanosine 73384-59-5, Ceftriaxone 77181-69-2, Sorivudine
79217-60-0, Cyclosporin 82410-32-0, Ganciclovir 84057-95-4,
Ropivacaine 84625-61-6, Itraconazole 85721-33-1, Ciprofloxacin
86386-73-4, Fluconazole 91161-71-6, Terbinafine 104227-87-4,
Famciclovir 104987-11-3, Tacrolimus 113852-37-2, Cidofovir
124832-26-4, Valacyclovir 357417-87-9

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of **peptide conjugates** for enhancing drug
delivery across biol. membranes and tissues)

IT 1403-66-3, Gentamycin 1404-90-6, Vancomycin
20830-81-3, Daunorubicin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of **peptide conjugates** for enhancing drug
delivery across biol. membranes and tissues)

RN 1403-66-3 HCAPLUS

CN Gentamicin (9CI) (CA INDEX NAME)

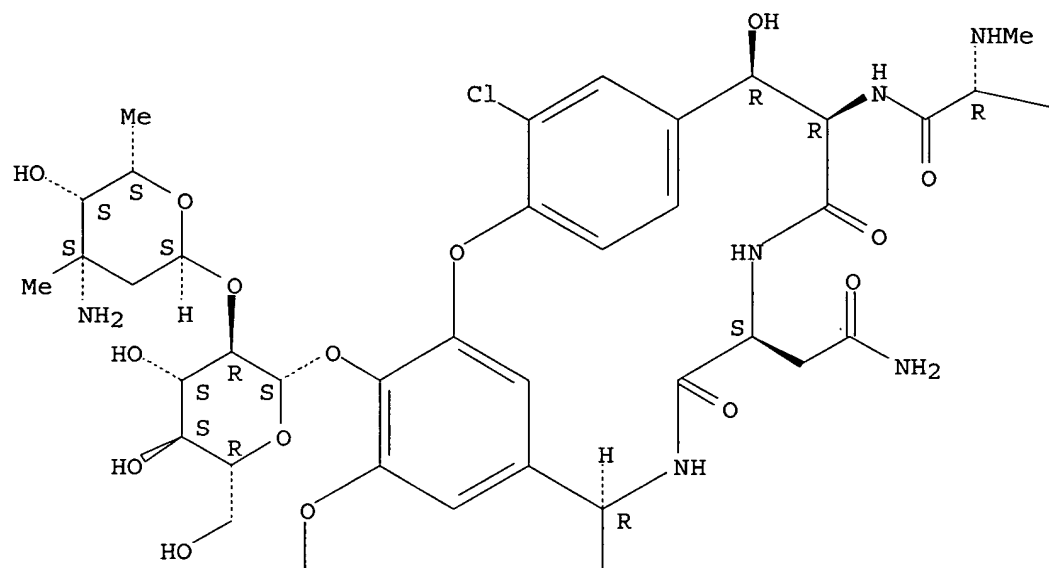
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RN 1404-90-6 HCAPLUS

CN Vancomycin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

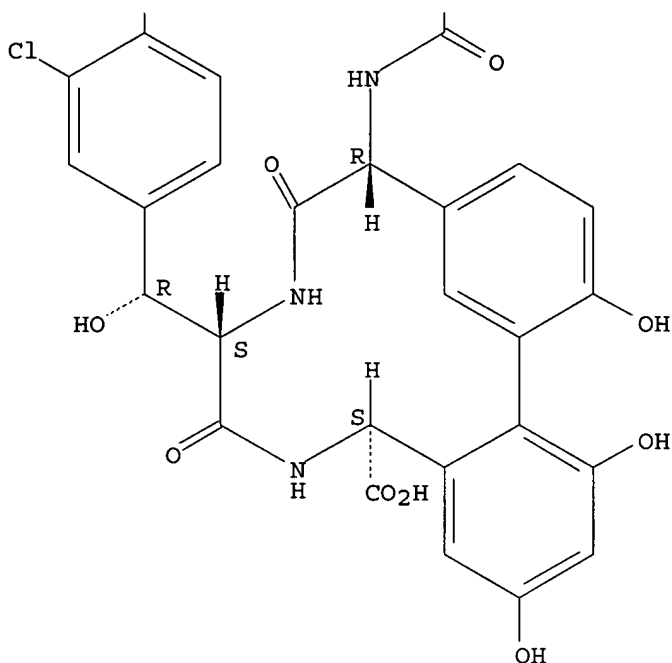
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PAGE 1-B

— Bu-i

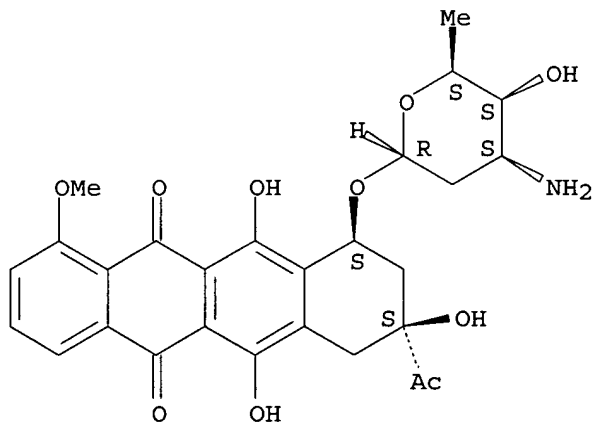
PAGE 2-A



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 29 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:618212 HCAPLUS

DOCUMENT NUMBER: 135:177678

TITLE: **Protein and peptide sensors using electrical detection methods**

INVENTOR(S): Sawyer, Jaymie Robin; Li, Changming; Choong, Vi-En;

PATENT ASSIGNEE(S): Maracas, George; Zhang, Peiming
 SOURCE: Motorola, Inc., USA
 PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001061053	A2	20010823	WO 2001-US5476	20010220 <--
WO 2001061053	A3	20020314		
WO 2001061053	C2	20021017		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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CA 2404492	AA	20010823	CA 2001-2404492	20010220 <--
EP 1257820	A2	20021120	EP 2001-911028	20010220 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2005023155	A1	20050203	US 2003-203874	20030609 <--
PRIORITY APPLN. INFO.:			US 2000-506178	A2 20000217 <--
			WO 2001-US5476	W 20010220

ED Entered STN: 24 Aug 2001

AB The present invention provides an apparatus and methods for the elec. detection of mol. interactions between a probe mol. and a **protein** or **peptide** target mol., but without requiring the use of electrochem. or other reporters to obtain measurable signals. The methods can be used for elec. detection of mol. interactions between probe mols. bound to defined regions of an array and **protein** or **peptide** target mols. which are permitted to interact with the probe mols. Streptavidin-modified porous polyacrylamide **hydrogel** microelectrodes were prepared Biotinylated polyclonal antibodies to Escherichia coli were immobilized on the microelectrodes and the sensor was used to detect Escherichia coli.

IC ICM C12Q001-68

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 6, 10, 15

ST **protein peptide** sensor elec detection mol interaction; microelectrode immobilized antibody Escherichia coli detection

IT Voltammetry

(a.c.; **protein** and **peptide** sensors using elec. detection methods)

IT Transition metal complexes

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (as reporters for labeling target mols.; **protein** and **peptide** sensors using elec. detection methods)

IT Ceramics

Printed circuit boards

Textiles

(as support; **protein** and **peptide** sensors using elec. detection methods)

IT **Glass**, uses
Plastics, uses
Rubber, uses
RL: DEV (Device component use); USES (Uses)
(as support; **protein** and **peptide** sensors using
elec. detection methods)

IT Analytical apparatus
(biochem.; **protein** and **peptide** sensors using elec.
detection methods)

IT Antibodies
RL: RCT (Reactant); RACT (Reactant or reagent)
(biotinylated, immobilization on streptavidin-modified porous
hydrogel microelectrodes; **protein** and **peptide**
sensors using elec. detection methods)

IT Polymers, uses
RL: DEV (Device component use); USES (Uses)
(co-, films, linking probe with microelectrodes; **protein** and
peptide sensors using elec. detection methods)

IT Plastics, uses
RL: DEV (Device component use); USES (Uses)
(conductive; **protein** and **peptide** sensors using
elec. detection methods)

IT Polymers, uses
RL: DEV (Device component use); USES (Uses)
(**conjugated**, films, linking probe with microelectrodes;
protein and **peptide** sensors using elec. detection
methods)

IT Films
(copolymer, linking probe with microelectrodes; **protein** and
peptide sensors using elec. detection methods)

IT Electrodes
(counter; **protein** and **peptide** sensors using elec.
detection methods)

IT Bacteria (Eubacteria)
(detection of viable; **protein** and **peptide** sensors
using elec. detection methods)

IT Immunoglobulins
RL: ARG (Analytical reagent use); BPR (Biological process); BSU
(Biological study, unclassified); DEV (Device component use); ANST
(Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(fragments, immobilized; **protein** and **peptide**
sensors using elec. detection methods)

IT Sols
(**gel** linking probe with microelectrodes; **protein**
and **peptide** sensors using elec. detection methods)

IT Voltammetry
(hydrodynamic modulation; **protein** and **peptide**
sensors using elec. detection methods)

IT Antiserums
Combinatorial library
Peptide library
Phage display library
(immobilized; **protein** and **peptide** sensors using
elec. detection methods)

IT Antibodies
Oligonucleotides
Peptides, biological studies
Probes (**nucleic acid**)
Proteins, specific or class
RL: ARG (Analytical reagent use); BPR (Biological process); BSU

(Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (immobilized; **protein** and **peptide** sensors using elec. detection methods)

IT Biosensors
(immunosensors; **protein** and **peptide** sensors using elec. detection methods)

IT Natural products
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (library, immobilized; **protein** and **peptide** sensors using elec. detection methods)

IT **Gels**
(linking probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(linking probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)

IT Polymers, uses
RL: DEV (Device component use); USES (Uses)
(metal-containing; **protein** and **peptide** sensors using elec. detection methods)

IT Antibodies
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (monoclonal, immobilized; **protein** and **peptide** sensors using elec. detection methods)

IT **Immobilization, biochemical**
(of probe interacting with **protein** or **peptide** target; **protein** and **peptide** sensors using elec. detection methods)

IT Metals, uses
RL: DEV (Device component use); USES (Uses)
(polymers impregnated with; **protein** and **peptide** sensors using elec. detection methods)

IT **Hydrogels**
(porous, streptavidin-modified; **protein** and **peptide** sensors using elec. detection methods)

IT Amperometry
Cyclic voltammetry
Electric conductivity
Electric conductors
Electric current
Electric impedance
Electric insulators
Electric potential
Electrolytes
Escherichia coli
Holders
Microelectrodes
Molecular association
Potentiometry
Reference electrodes
Sensors
Square wave voltammetry
(**protein** and **peptide** sensors using elec. detection methods)

- IT **Peptides**, analysis
 Proteins, general, analysis
 RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT Carbides
Nitrides
Oxides (inorganic), uses
Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT Voltammetry
 (pulsed; **protein** and **peptide** sensors using elec. detection methods)
- IT Antibodies
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
 (single chain, Fv fragments, immobilized; **protein** and **peptide** sensors using elec. detection methods)
- IT 9013-20-1, Streptavidin
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 (as linking agent for immobilizing biotinylated probe mols.; **protein** and **peptide** sensors using elec. detection methods)
- IT 7439-89-6D, Iron, complexes, uses 7439-95-4D, Magnesium, complexes, uses 7440-02-0D, Nickel, complexes, uses 7440-04-2D, Osmium, complexes, uses 7440-18-8D, Ruthenium, complexes, uses 7440-48-4D, Cobalt, complexes, uses 7440-50-8D, Copper, complexes, uses 7440-66-6D, Zinc, complexes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (as reporters for labeling target mols.; **protein** and **peptide** sensors using elec. detection methods)
- IT 7440-21-3, Silicon, uses 12033-89-5, Silicon nitride, uses
RL: DEV (Device component use); USES (Uses)
 (as support; **protein** and **peptide** sensors using elec. detection methods)
- IT 9033-83-4, Polyphenylene 25013-01-8, Polypyridine 25067-54-3, Polyfuran 25233-30-1, Polyaniline 25233-34-5, Polythiophene 30604-81-0, Polypyrrole 51555-21-6, Polycarbazole 82451-55-6, Polyindole 95270-88-5, Polyfluorene 96638-49-2, Poly(phenylenevinylene)
RL: DEV (Device component use); USES (Uses)
 (films, linking probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)
- IT 9003-05-8, Polyacrylamide 9004-34-6, Cellulose, uses 9012-36-6, Agarose
RL: DEV (Device component use); USES (Uses)
 (**gel linking** probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)
- IT 25322-68-3, Polyethylene glycol
RL: DEV (Device component use); USES (Uses)
 (linking probe with microelectrodes; **protein** and

- peptide** sensors using elec. detection methods)
- IT 109-97-7, Pyrrole
 RL: DEV (Device component use); USES (Uses)
 (neutral matrix, linking probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)
- IT 57-62-5D, Chlortetracycline, **conjugates** with target mols.
 60-54-8D, Tetracycline, **conjugates** with target mols. 65-61-2D, Acridine orange, **conjugates** with target mols. 90-45-9D, 9-Aminoacridine, **conjugates** with target mols. 100-22-1D, N,N,N',N'-Tetramethyl-p-phenylenediamine, **conjugates** with target mols. 102-54-5D, Ferrocene, **conjugates** with target mols. 106-51-4D, 1,4-Benzoquinone, **conjugates** with target mols. 865-21-4D, Vinblastine, **conjugates** with target mols. 1239-45-8D, Ethidium bromide, **conjugates** with target mols. 1518-16-7D, Tetracyanoquinodimethane, **conjugates** with target mols. 7059-24-7D, Chromomycin A3, **conjugates** with target mols. 7240-37-1D, 7-Aminoactinomycin D, **conjugates** with target mols. 10118-90-8D, Minocycline, **conjugates** with target mols. 11056-06-7D, Bleomycin, **conjugates** with iron and target mols. 13292-46-1D, Rifampicin, **conjugates** with target mols. 18378-89-7D, Mithramycin A, **conjugates** with target mols. 19052-39-2D, **conjugates** with target mols. 20830-81-3D, Daunomycin, **conjugates** with target mols. 23214-92-8D, Doxorubicin, **conjugates** with target mols. 23491-45-4D, Hoechst 33258, **conjugates** with target mols. 23491-52-3D, Hoechst 33342, **conjugates** with target mols. 31366-25-3D, Tetrathiafulvalene, **conjugates** with target mols. 57576-44-0D, Aclarubicin, **conjugates** with target mols. 63783-82-4D, Ethidium monoazide, **conjugates** with target mols. 72496-41-4D, Pirarubicin, **conjugates** with target mols. 355395-37-8D, **conjugates** with target mols.
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT 58-85-5D, Biotin, **conjugates** with probe mols., complexes with immobilized streptavidin
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT 7429-90-5, Aluminum, uses 7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-32-6, Titanium, uses 7440-44-0, Carbon, uses 7440-47-3, Chromium, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 7782-42-5, Graphite, uses 7783-90-6, Silver chloride, uses
 RL: DEV (Device component use); USES (Uses)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT 7439-89-6D, Iron, **conjugates** with bleomycin and target mols., reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**protein** and **peptide** sensors using elec. detection methods)
- IT 9004-34-6, Cellulose, uses 9012-36-6, Agarose
 RL: DEV (Device component use); USES (Uses)
 (gel linking probe with microelectrodes; **protein** and **peptide** sensors using elec. detection methods)
- RN 9004-34-6 HCAPLUS
 CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-36-6 HCAPLUS

CN Agarose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 18378-89-7D, Mithramycin A, **conjugates** with target mols.

20830-81-3D, Daunomycin, **conjugates** with target mols.

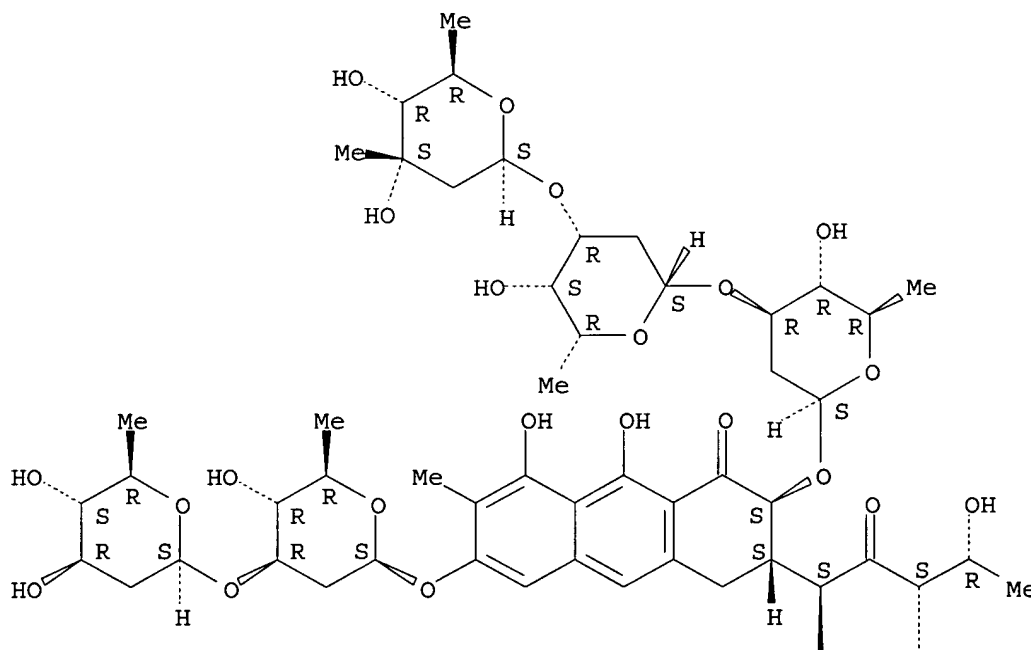
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(protein and peptide sensors using elec. detection methods)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy- β -D-arabino-hexopyranosyl)- β -D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl- β -D-ribo-hexopyranosyl-(1 \rightarrow 3)-O-2,6-dideoxy- β -D-lyxo-hexopyranosyl-(1 \rightarrow 3)-2,6-dideoxy- β -D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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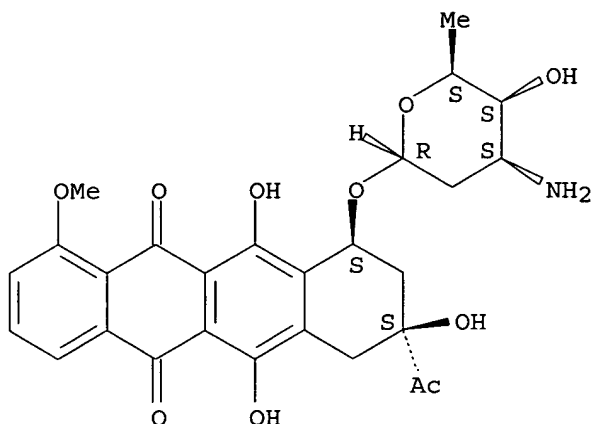
PAGE 2-A



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 30 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:416984 HCAPLUS

DOCUMENT NUMBER: 135:45171

TITLE: Novel serpentine transmembrane antigens expressed in human cancers

INVENTOR(S): Afar, Daniel E. H.; Hubert, Rene S.; Raitano, Arthur B.; Saffran, Douglas C.; Mitchell, Steve Chappell; Faris, Mary; Jakobovits, Aya

PATENT ASSIGNEE(S): Urogenesys, Inc., USA

SOURCE: PCT Int. Appl., 187 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001040276	A2	20010607	WO 2000-US33040	20001206 <--
WO 2001040276	A3	20020110		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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US 2005004349	A1	20050106	US 2004-753195	20040106 <--
US 2006020113	A9	20060126		

AU 2004224964	A1	20041125	AU 2004-224964	20041029 <--
AU 2005202361	A1	20050616	AU 2005-202361	20050531
AU 2006200459	A1	20060302	AU 2006-200459	20060202 <--
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			US 1998-87520P	P 19980601 <--
			US 1998-91183P	P 19980630 <--
			AU 1999-43262	A3 19990601 <--
			US 1999-323873	A2 19990601 <--
			WO 1999-US12157	A 19990601 <--
			WO 2000-US33040	W 20001206 <--
			US 2001-296656P	P 20010606
			US 2002-165044	A1 20020606
			AU 2003-204605	A3 20030610
			AU 2004-224964	A3 20041029

ED Entered STN: 08 Jun 2001

AB The authors describe a novel family of cell surface serpentine transmembrane antigens. Two of the **proteins** in this family are exclusively or predominantly expressed in the prostate, as well as in prostate cancer, and thus members of this family have been termed "STEAP" (Six Transmembrane Epithelial Antigen of the Prostate). Four particular human STEAPs are described and characterized. The human STEAPs exhibit a high degree of structural conservation among themselves but show no significant structural homol. to any known human **proteins**. The prototype member of the STEAP family, STEAP-1, appears to be a type IIIa membrane **protein** expressed predominantly in prostate cells in normal human tissues. Structurally, STEAP-1 is a 339 amino acid **protein** characterized by a mol. topol. of six transmembrane domains and intracellular N- and C- termini, suggesting that it folds in a "serpentine" manner into three extracellular and two intracellular loops. STEAP-1 **protein** expression is maintained at high levels across various stages of prostate cancer. Moreover, STEAP-1 is highly over-expressed in certain other human cancers.

IC ICM C07K014-00

CC 15-2 (Immunocytochemistry)

Section cross-reference(s): 1, 3, 8, 14

ST sequence serpentine transmembrane **protein** prostate gland; STEAP antigen prostate cancer

IT Abrins

Glucocorticoids

Ricins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with antibodies; targeting of STEAP-2 and STEAP-3 antigens by)

IT **Proteins, specific or class**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(croton, antibody **conjugates**; targeting of STEAP-2 and STEAP-3 antigens by)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, antibody **conjugates**; targeting of STEAP-2 and STEAP-3 antigens by)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, antibody **conjugates**; targeting of STEAP-2 and STEAP-3 antigens by)

IT Immunoassay

Nucleic acid hybridization

(for detection of STEAP-2 and STEAP-3 antigens)

IT **Protein sequences**

cDNA sequences

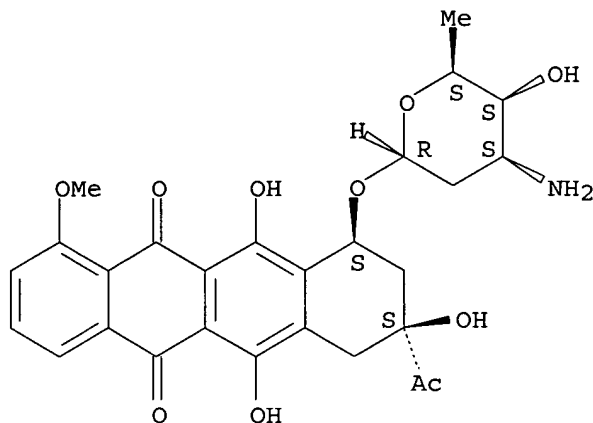
- (for human six transmembrane epithelial antigens of prostate)
- IT **Drug delivery systems**
(immunotoxins; to STEAP-2 and STEAP-3 antigens)
- IT **Oligonucleotides**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(labeled; for detection of STEAP-2 and STEAP-3 gene expression)
- IT Secondary structure
(**protein**; of STEAP-1 antigen)
- IT 344386-31-8 344386-32-9
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**nucleotide** sequence; sequence characterization and expression in normal and neoplastic tissue)
- IT 57-22-7D, Vincristine, antibody **conjugates** 64-86-8D, Colchicine, antibody **conjugates** 865-21-4D, Vinblastine, antibody **conjugates** 1239-45-8D, Ethidium bromide, antibody **conjugates** 1402-38-6D, Actinomycin, antibody **conjugates** 1404-00-8D, Mitomycin, antibody **conjugates** 1406-72-0D, Restrictocin, antibody **conjugates** 1407-48-3D, α -Sarcin, antibody **conjugates** 10043-66-0D, iodine 131, antibody **conjugates**, biological studies 10098-91-6D, yttrium 90, antibody **conjugates**, biological studies 11029-13-3D, Enomycin, antibody **conjugates** 12624-22-5D, Phenomycin, antibody **conjugates** 14913-49-6D, bismuth 212, antibody **conjugates**, biological studies 14998-63-1D, rhenium 186, antibody **conjugates**, biological studies **20830-81-3D**, Daunorubicin, antibody **conjugates** 23214-92-8D, Doxorubicin, antibody **conjugates** 29767-20-2D, Teniposide, antibody **conjugates** 31918-08-8D, indium 131, antibody **conjugates**, biological studies 33069-62-4D, Taxol, antibody **conjugates** 33419-42-0D, Etoposide, antibody **conjugates** 65988-88-7D, Modeccin, antibody **conjugates** 75037-46-6D, Gelonin, antibody **conjugates** 113440-58-7D, Calicheamicin, antibody **conjugates** 321995-29-3D, Mitogellin, antibody **conjugates**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(targeting of STEAP-2 and STEAP-3 antigens by)
- IT 166422-95-3 194254-59-6 209152-26-1 216929-10-1 251951-05-0, 5: PN: WO9962941 PAGE: 5 unclaimed DNA 251951-06-1, 6: PN: WO9962941 PAGE: 5 unclaimed DNA 251973-72-5 251974-30-8, 11: PN: WO9962941 PAGE: 8 unclaimed DNA 251974-31-9, 12: PN: WO9962941 PAGE: 8 unclaimed DNA 251974-35-3, 25: PN: WO9962941 PAGE: 48 unclaimed DNA 251974-36-4, 27: PN: WO9962941 FIG: 10 unclaimed DNA 252050-33-2, 24: PN: WO9962941 PAGE: 48 unclaimed DNA 259165-37-2, 6: PN: WO0179557 SEQID: 8 unclaimed DNA 259165-38-3, 7: PN: WO0179557 SEQID: 9 unclaimed DNA 259165-39-4, 8: PN: WO0179557 SEQID: 10 unclaimed DNA 259165-40-7, 9: PN: WO0179557 SEQID: 11 unclaimed DNA 259165-41-8 325903-84-2 325903-85-3, GenBank AX083191 325903-86-4 325903-87-5 334966-91-5 343468-63-3, 3: PN: WO0140276 SEQID: 3 unclaimed DNA 344386-33-0, 1: PN: WO0140276 SEQID: 1 unclaimed DNA 344386-35-2, 7: PN: WO0140276 SEQID: 7 unclaimed DNA 344386-38-5
RL: PRP (Properties)
(unclaimed **nucleotide** sequence; novel serpentine transmembrane antigens expressed in human cancers)
- IT 252003-05-7 344386-34-1 344386-36-3 344386-37-4
RL: PRP (Properties)
(unclaimed **protein** sequence; novel serpentine transmembrane antigens expressed in human cancers)
- IT **20830-81-3D**, Daunorubicin, antibody **conjugates**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(targeting of STEAP-2 and STEAP-3 antigens by)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 31 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:300549 HCAPLUS

DOCUMENT NUMBER: 134:305296

TITLE: Cobalamin **conjugates** useful as imaging agents and as antitumor agents

INVENTOR(S): Hogenkamp, Henricus P. C.; Collins, Douglas A.

PATENT ASSIGNEE(S): Mayo Foundation for Medical Education and Research, USA; Regents of the University of Minnesota

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028592	A1	20010426	WO 2000-US10097	20000415 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2387757	AA	20010426	CA 2000-2387757	20000415 <--
AU 2000042434	A5	20010430	AU 2000-42434	20000415 <--
EP 1231942	A1	20020821	EP 2000-922210	20000415 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003512338	T2	20030402	JP 2001-531420	20000415 <--
US 2005004010	A1	20050106	US 2004-859865	20040603 <--
AU 2006201021	A1	20060406	AU 2006-201021	20060310 <--

PRIORITY APPLN. INFO.:

US 1999-159874P A2 19991015 <--
AU 2000-42434 A3 20000415 <--
WO 2000-US10097 W 20000415 <--
US 2000-690198 B1 20001016 <--

OTHER SOURCE(S): MARPAT 134:305296

ED Entered STN: 27 Apr 2001

AB The invention provides cobalamin derivs. which are useful for medical treatment and diagnosis. Cobalamin derivs. are conjugated with chemotherapeutic agents and/or radionuclides.

IC ICM A61K047-48

ICS A61K051-04

CC 1-6 (Pharmacology)

Section cross-reference(s): 8, 9

ST cobalamin **conjugate** tumor imaging antitumor; chemotherapeutic **conjugate** cobalamin deriv; radionuclide **conjugate** cobalamine deriv

IT Amino acids, properties

Peptides, properties

RL: PRP (Properties)

(as **linker**; cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Diagnosis

(cancer; cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Chemotherapy

(chemotherapeutic agent **conjugates** with cobalamin compound; cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Antitumor agents

Bone, neoplasm

Cytotoxic agents

Diagnosis

Drug delivery systems

Eye, neoplasm

Imaging agents

Kidney, neoplasm

Liver, neoplasm

Lung, neoplasm

Mammal (Mammalia)

Myoma

Ovary, neoplasm

Pancreas, neoplasm

Stomach, neoplasm

Testis, neoplasm

Thyroid gland, neoplasm

(cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Intestine, neoplasm

(colon; cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Intestine, neoplasm

(colorectal; cobalamin **conjugates** useful as imaging agents and as antitumor agents)

IT Radionuclides, biological studies

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(conjugates with cobalamin compds.; cobalamin

conjugates useful as imaging agents and as antitumor agents)

IT Neoplasm

(diagnosis; cobalamin **conjugates** useful as imaging agents and

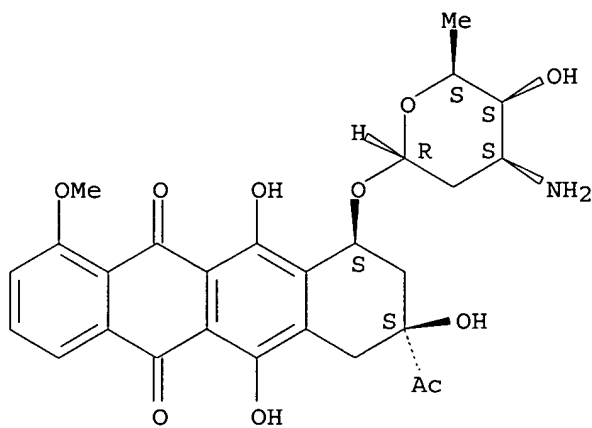
3/7

Considered
06/29/06
MEC

- as antitumor agents)
- IT Pharynx
(nasopharynx, neoplasm; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Lymph node
(neoplasm, metastasis; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Bladder
Bone marrow, disease
Ear
Esophagus
Mammary gland
Prostate gland
Salivary gland
Spinal cord
Ureter
(neoplasm; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Radionuclides, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nonmetallic, **conjugates** with cobalamin compds.; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Pharynx
(oropharynx, neoplasm; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Intestine, neoplasm
(small; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Muscle
(smooth, neoplasm; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Imaging
(tumor; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT Heart
(tumors; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT 25104-18-1, Poly-L-lysine 38000-06-5, Poly-L-lysine
RL: PRP (Properties)
(as linker; cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT 68-19-9D, Vitamin B12, **conjugates** 13408-78-1D, Cobalamin, compds., **conjugates** 13422-51-0D, **conjugates** 13422-55-4D, **conjugates** 13870-90-1D, **conjugates** 13981-56-1D, Fluorine-18, **conjugates** with cobalamin compds., biological studies 14158-30-6D, Iodine-124, **conjugates** with cobalamin compds., biological studies 14333-33-6D, Carbon-11, **conjugates** with cobalamin compds., biological studies 15715-08-9D, Iodine-123, **conjugates** with cobalamin compds., biological studies 15765-38-5D, Bromine-76, **conjugates** with cobalamin compds., biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cobalamin **conjugates** useful as imaging agents and as antitumor agents)
- IT 20830-81-3D, Daunorubicin, **conjugates** with cobalamin compds. 23214-92-8D, Doxorubicin, **conjugates** with cobalamin compds. 33069-62-4D, Paclitaxel, **conjugates** with cobalamin compds.

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (cobalamin **conjugates** useful as imaging agents and as
 antitumor agents)
 IT 20830-81-3D, Daunorubicin, **conjugates** with cobalamin
 compds.
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (cobalamin **conjugates** useful as imaging agents and as
 antitumor agents)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 32 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:265607 HCAPLUS

DOCUMENT NUMBER: 134:291153

TITLE: **Protein** and cDNA sequences, and
 prostate-specific expression of human serine protease
 PROST-07, and uses thereof in diagnosis and therapy
 INVENTOR(S): Bringmann, Peter W.; Brink, Jody; Harkins, Richard;
 Light, David R.; Lin, Richard J.; Parkes, Deborah;
 Parry, Gordon; Schneider, Douglas W.; Steinbrecher,
 Renate; Van Heuit, Pamela Toy; Xuan, Jian-ai

PATENT ASSIGNEE(S): Schering A.-G., Germany

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025446	A1	20010412	WO 2000-US27431	20001005 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 EP 1220931 A1 20020710 EP 2000-967319 20001005 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL
 JP 2003528584 T2 20030930 JP 2001-528598 20001005 <--
 NO 2002001614 A 20020604 NO 2002-1614 20020405 <--
 PRIORITY APPLN. INFO.: US 1999-158588P P 19991007 <--
 US 2000-678940 A2 20001002 <--
 WO 2000-US27431 W 20001005 <--

ED Entered STN: 13 Apr 2001

AB Prost-07 was identified as a gene expressed in the prostate by mining Incyte's LifeSeq gene expression database. PROST-07 mRNA was specifically expressed in prostate gland, and expression was higher in the prostate tumor tissues than in the normal tissue. The PROST-07 is characterized by a catalytic triad of serine, histidine and aspartic acid as has been described for other serine proteases. It shows homol. to the kallikrein family of serine proteases and similar to serine protease EMSP1. Enzymic activity of Post-07 was demonstrated. The present invention relates to PROST-07 **polypeptides**, **polynucleotides** encoding the **polypeptides**, methods for producing the **polypeptides**, expression vectors and genetically engineered host cells for expression of the **polypeptides**. The invention further relates to methods for utilizing the **polynucleotides** and **polypeptides** in research, diagnosis, and therapeutic applications.

IC ICM C12N015-57

ICS C12N015-11; C12N009-64; C12Q001-68; G01N033-577

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 1, 7, 13

IT Tumor markers

(PROST-07 mRNA expression higher in prostate tumor tissue; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT Prostate gland

(PROST-07 mRNA specifically expressed in; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT Antibodies

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(PROST-07, radiolabeled, or labeled with enzyme, chromophore or fluorescer; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT mRNA

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(PROST-07, tissue distribution; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT Antisense **oligonucleotides**

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(PROST-07; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

- IT Ribozymes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PROST-07; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Animal tissue
(diagnosing sample; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, immunoconjugate; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, (PE)A, PE40, Pseudomonas, immunoconjugate with; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT **Immunoglobulins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**fragments**, Fv, F(ab), F(ab)₂, **conjugate**; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Cytotoxic agents
(immunoconjugate with; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Abrins
Glucocorticoids
Radionuclides, biological studies
Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunoconjugate with; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT **Drug delivery systems**
(immunoconjugates; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Diagnosis
(mol.; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Antibodies
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal, PROST-07; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Prostate gland
(neoplasm, associated with PROST-07 expression; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Cell proliferation
(prostate tumor, Prost-07 antisense **oligonucleotides** inhibited; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in

- diagnosis and therapy)
- IT Epitopes
Genetic engineering
Molecular cloning
Protein sequences
cDNA sequences
(**protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT Probes (**nucleic acid**)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 334716-08-4 334716-09-5 334716-10-8
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PROST-07 antisense **oligonucleotide**; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 37259-58-8P, Serine protease
RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(PROST-07, destroying cell expressing; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 334716-16-4D, **Proteinase**, serine (human gene Prost-07), subfragments are claimed
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(amino acid sequence; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 50-76-0, Actinomycin D 57-22-7, Vincristine 64-86-8, Colchicine 865-21-4, Vinblastine 1239-45-8, Ethidium bromide **20830-81-3**, Daunorubicin 23214-92-8, Doxorubicin 29767-20-2, Teniposide 33069-62-4, Taxol 33419-42-0, Etoposide 74707-94-1, Mitomycine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**immunoconjugate** with; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 334716-07-3D, subfragments are claimed
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**nucleotide** sequence; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 334666-76-1 334666-77-2 334666-78-3 334666-79-4
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(serine **proteinase** PROST-07 epitope-containing fragment; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)
- IT 334717-97-4 334717-98-5 334717-99-6 334718-00-2 334718-01-3

334718-02-4 334718-03-5 334718-04-6 334718-05-7 334718-06-8
334718-07-9 334718-08-0 334718-09-1 334718-10-4

RL: PRP (Properties)

(unclaimed **nucleotide** sequence; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT 205767-86-8, **Proteinase**, EMSP1, prepro- (swine)

RL: PRP (Properties)

(unclaimed **protein** sequence; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT 334666-80-7 334666-81-8

RL: PRP (Properties)

(unclaimed sequence; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

IT 20830-81-3, Daunorubicin

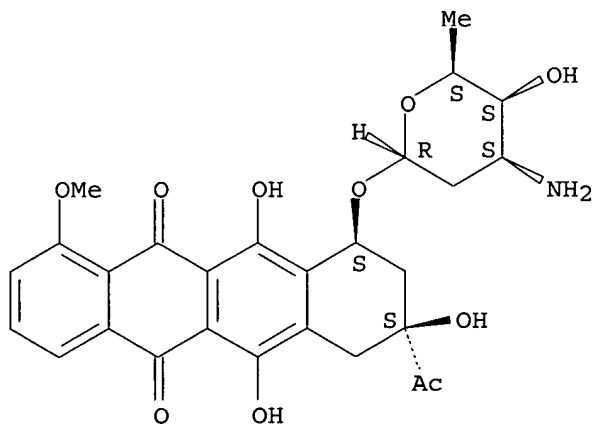
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**immunoconjugate** with; **protein** and cDNA sequences, and prostate-specific expression of human serine protease PROST-07, and uses thereof in diagnosis and therapy)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 33 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:228909 HCAPLUS

DOCUMENT NUMBER: 134:265163

TITLE: Characterization of human T1/ST2/Fit-1 gene product: Diagnosis and treatment of immune disorders

INVENTOR(S): Leiby, Kevin R.; Kingsbury, Gillian A.

PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021641	A1	20010329	WO 2000-US26555	20000925 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6323334	B1	20011127	US 2000-560639	20000428 <--
EP 1218400	A1	20020703	EP 2000-966957	20000925 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
US 2002058800	A1	20020516	US 2001-899980	20010706 <--
PRIORITY APPLN. INFO.:				
			US 1999-155862P	P 19990924 <--
			US 2000-560639	A 20000428 <--
			WO 2000-US26555	W 20000925 <--
ED	Entered STN: 30 Mar 2001			
AB	The authors disclose methods and compns. for the treatment and diagnosis of immune disorders, especially helper T lymphocyte-related disorders. In particular, the authors describe a gene known alternatively, as ST2, T1, and Fit-1, and referred to herein as the 103 gene. The 103 gene is disclosed to be differentially expressed in TH2 cells and not in TH1 cells. In a Th2 cell adoptive transfer model of asthma in mouse, the 103 gene product was demonstrated to be a mediator of eosinophilic inflammation and airway hyperresponsiveness.			
IC	ICM C07H021-04			
CC	ICS C12N015-19; C12N015-63; C12N015-85			
CC	15-10 (Immunochemistry)			
IT	Section cross-reference(s): 1			
IT	Glucocorticoids			
IT	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates , with anti-gene 103 receptor antibodies; for therapy of Th2-cell-based disorders)			
IT	Cytokines			
IT	Interleukin 1			
IT	Interleukin 2			
IT	Interleukin 6			
IT	Lymphotoxin			
IT	Tumor necrosis factors			
IT	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (conjugates , with monoclonal antibody to gene 103 receptor; for therapy of Th2-cell-based disorders)			
IT	Protein sequences			
IT	cDNA sequences			
IT	(for human gene 103 receptor)			
IT	Drug delivery systems			
IT	(immunotoxins; for human gene 103 receptor)			
IT	Interferons			
IT	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (γ , conjugates , with monoclonal antibody to gene 103 receptor; for therapy of Th2-cell-based disorders)			
IT	50-07-7D, Mitomycin C, anti-gene 103 receptor antibody conjugates			
IT	50-18-0D, Cyclophosphamide, anti-gene 103 receptor antibody			
IT	conjugates 50-44-2D, 6-Mercaptopurine, anti-gene 103 receptor			

antibody **conjugates** 50-76-0D, Actinomycin D, anti-gene 103
 receptor antibody **conjugates** 51-21-8D, 5-Fluorouracil,
 anti-gene 103 receptor antibody **conjugates** 51-75-2D,
 Mechlorethamine, anti-gene 103 receptor antibody **conjugates**
 52-24-4D, Thiotepe, anti-gene 103 receptor antibody **conjugates**
 53-79-2D, Puromycin, anti-gene 103 receptor antibody **conjugates**
 55-98-1D, Busulfan, anti-gene 103 receptor antibody **conjugates**
 57-22-7D, Vincristine, anti-gene 103 receptor antibody **conjugates**
 59-05-2D, Methotrexate, anti-gene 103 receptor antibody **conjugates**
 59-46-1D, Procaine, anti-gene 103 receptor antibody **conjugates**
 64-86-8D, Colchicine, anti-gene 103 receptor antibody **conjugates**
 94-24-6D, Tetracaine, anti-gene 103 receptor antibody **conjugates**
 137-58-6D, Lidocaine, anti-gene 103 receptor antibody **conjugates**
 147-94-4D, Cytarabine, anti-gene 103 receptor antibody **conjugates**
 148-82-3D, Melphalan, anti-gene 103 receptor antibody **conjugates**
 154-42-7D, 6-Thioguanine, anti-gene 103 receptor antibody
conjugates 154-93-8D, Carmustine, anti-gene 103 receptor
 antibody **conjugates** 305-03-3D, Chlorambucil, anti-gene 103
 receptor antibody **conjugates** 483-18-1D, Emetine, anti-gene 103
 receptor antibody **conjugates** 488-41-5D, anti-gene 103 receptor
 antibody **conjugates** 525-66-6D, anti-gene 103 receptor antibody
conjugates 846-48-0D, 1-Dehydrotestosterone, anti-gene 103
 receptor antibody **conjugates** 865-21-4D, Vinblastine, anti-gene
 103 receptor antibody **conjugates** 1239-45-8D, Ethidium bromide,
 anti-gene 103 receptor antibody **conjugates** 1393-88-0D,
 Gramicidin D, anti-gene 103 receptor antibody **conjugates**
 1404-00-8D, Mitomycin, anti-gene 103 receptor antibody **conjugates**
 4342-03-4D, Dacarbazine, anti-gene 103 receptor antibody
conjugates 13010-47-4D, Lomustine, anti-gene 103 receptor
 antibody **conjugates** 14930-96-2D, Cytochalasin B, anti-gene 103
 receptor antibody **conjugates** 15663-27-1D, Cisplatin, anti-gene
 103 receptor antibody **conjugates** 18378-89-7D,
 Mithramycin, anti-gene 103 receptor antibody **conjugates**
 18883-66-4D, Streptozotocin, anti-gene 103 receptor antibody
conjugates 20830-81-3D, Daunorubicin, anti-gene 103
 receptor antibody **conjugates** 23214-92-8D, Doxorubicin,
 anti-gene 103 receptor antibody **conjugates** 29767-20-2D,
 Teniposide, anti-gene 103 receptor antibody **conjugates**
 33069-62-4D, Paclitaxel, anti-gene 103 receptor antibody
conjugates 33419-42-0D, Etoposide, anti-gene 103 receptor
 antibody **conjugates** 65271-80-9D, Mitoxantrone, anti-gene 103
 receptor antibody **conjugates** 146912-45-0D, anti-gene 103
 receptor antibody **conjugates**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (for therapy of Th2-cell-based disorders)

IT 331783-66-5

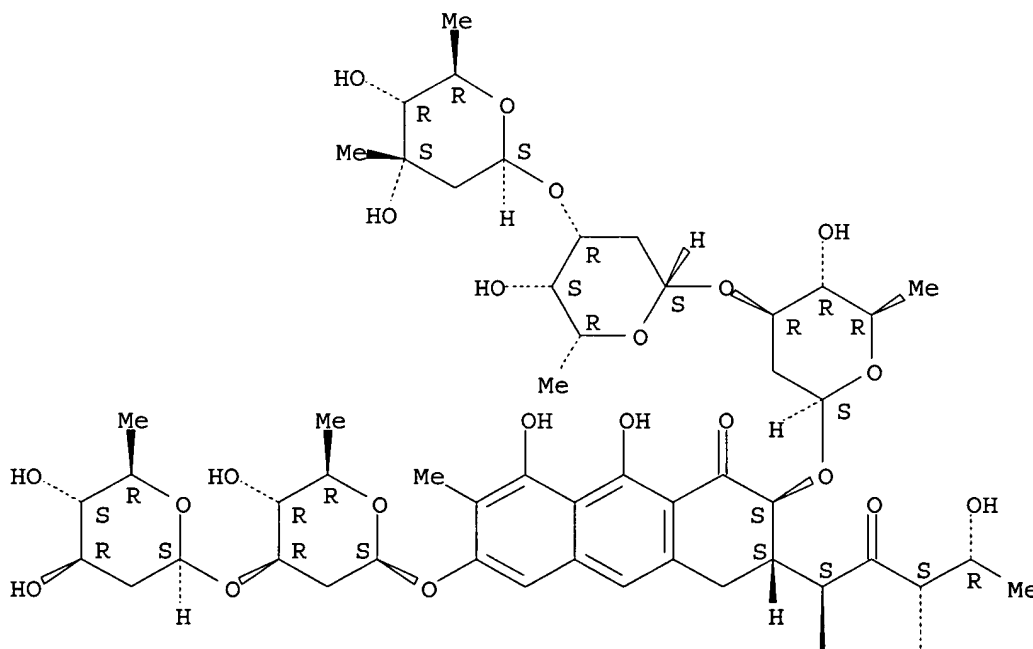
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
 (Properties); BIOL (Biological study); OCCU (Occurrence)
 (nucleotide sequence; diagnosis and treatment of Th2
 cell-based immune disorders)

IT 147401-41-0 147825-22-7, DNA (mouse gene STSL **protein** cDNA
 plus flanks) 192795-50-9, DNA (mouse gene 103 **protein** cDNA)
 228085-90-3 246054-06-8 287414-98-6 287414-99-7 287415-00-3
 310908-03-3, 6: PN: WO0073498 SEQID: 18 unclaimed DNA 310908-04-4, 7:
 PN: WO0073498 SEQID: 19 unclaimed DNA 310908-05-5, 8: PN: WO0073498
 SEQID: 20 unclaimed DNA 310908-06-6, 9: PN: WO0073498 SEQID: 21
 unclaimed DNA 310908-12-4 310908-13-5 310908-16-8 310908-17-9
 310908-18-0 310908-19-1 310908-27-1 310908-28-2 331784-94-2
 331784-95-3 331784-96-4 331784-97-5 331784-98-6
 RL: PRP (Properties)

- (unclaimed **nucleotide** sequence; characterization of human T1/ST2/Fit-1 gene product, Diagnosis and treatment of immune disorders)
- IT 128394-38-7, **Protein** (mouse clone ST2 growth-specific precursor reduced) 148023-59-0, **Protein** (mouse gene STSL reduced) 149147-59-1 307359-19-9, **Protein** ST2L (human UT-7 cell gene ST2) 331784-93-1
- RL: PRP (Properties)
- (unclaimed **protein** sequence; characterization of human T1/ST2/Fit-1 gene product, Diagnosis and treatment of immune disorders)
- IT 18378-89-7D, Mithramycin, anti-gene 103 receptor antibody **conjugates** 20830-81-3D, Daunorubicin, anti-gene 103 receptor antibody **conjugates**
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (for therapy of Th2-cell-based disorders)
- RN 18378-89-7 HCAPLUS
- CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[[2,6-dideoxy-3-O-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-β-D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl-β-D-ribo-hexopyranosyl-(1→3)-O-2,6-dideoxy-β-D-lyxo-hexopyranosyl-(1→3)-2,6-dideoxy-β-D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



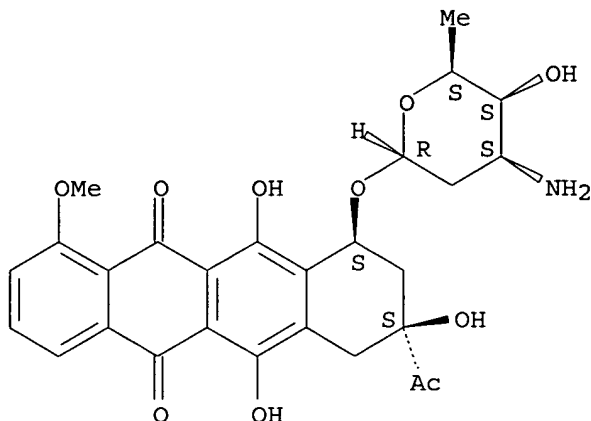
PAGE 2-A



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 34 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:876567 HCAPLUS

DOCUMENT NUMBER: 136:11094

TITLE: Hormone-recombinant toxin compounds and use for chemical castration

INVENTOR(S): Nett, Torrance M.; Lode, Leonard Michael; Wieczorek, Maciej; Jarosz, Paul

PATENT ASSIGNEE(S): Colorado State University Research Foundation, USA

SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 6,103,881.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6326467	B1	20011204	US 2000-551933	20000419 <--
US 5378688	A	19950103	US 1992-837639	19920214 <--
US 5631229	A	19970520	US 1993-88434	19930707 <--
US 5492893	A	19960220	US 1993-94250	19930720 <--
US 6103881	A	20000815	US 1998-15729	19980407 <--
US 2002165126	A1	20021107	US 2002-54552	20020121 <--
US 6924268	B2	20050802		
US 2005277582	A1	20051215	US 2005-192754	20050729 <--
PRIORITY APPLN. INFO.:			US 1989-314643	B2 19890223 <--
			US 1992-837639	A2 19920214 <--
			US 1993-88434	A2 19930707 <--
			US 1993-94250	A2 19930720 <--
			US 1993-94265	A2 19930720 <--
			US 1998-15729	A2 19980407 <--
			US 1989-314653	B2 19890223 <--
			US 1993-94625	A1 19930720 <--
			US 1995-481128	A2 19950607 <--

US 1996-591917	A1 19960126 <--
US 1998-93087P	P 19980716 <--
US 1999-354295	A1 19990715 <--
US 2000-551933	A1 20000419 <--
US 2002-54552	A1 20020121

ED Entered STN: 06 Dec 2001

AB Certain toxic compds. (T) such as, for example, compds. based upon diphtheria toxin, ricin toxin, pseudomonas exotoxin, α -amanitin, pokeweed antiviral **protein** (PAP), ribosome inhibiting **proteins**, especially the ribosome inhibiting **proteins** of barley, wheat, corn, rye, gelonin and abrin, as well as certain cytotoxic chems. such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compds. which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compds. may be used to sterilize such animals and/or to treat certain sex hormone related diseases.

IC ICM A61K038-00

ICS C07K005-00; C07K007-00

INCL 530328000

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 2

ST hormone toxin **conjugate** prepn chem castration

IT Ricins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(A, **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

IT **Proteins**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(PAP (pokeweed antiviral **protein**), **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

IT **Proteins**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(RIP (ribosome-inactivating **protein**), **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

IT Cytotoxic agents

(**conjugates** with hormones; hormone-toxin **conjugates** and use for chemical sterilization)

IT Hormones, animal, biological studies

Toxins

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

IT Abrins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

IT Toxins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(diphtheria, **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)

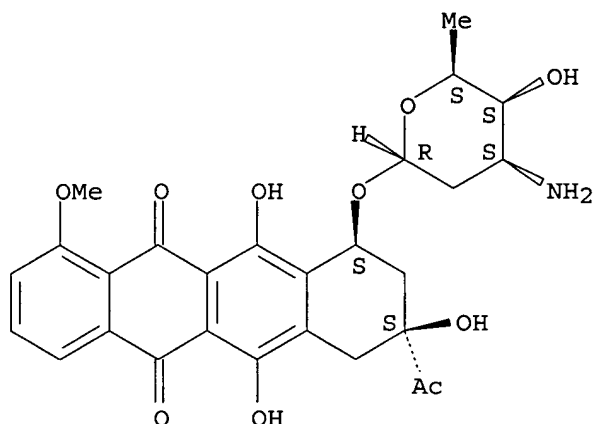
IT Pseudomonas

(exotoxin, **conjugates**; hormone-toxin **conjugates** and

- use for chemical sterilization)
- IT Toxins
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)
- IT Pituitary gland, anterior lobe
(gonadotroph, destruction; hormone-toxin **conjugates** and use for chemical sterilization)
- IT Toxins
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hemi-, **conjugates**; hormone-toxin **conjugates** and use for chemical sterilization)
- IT Hordeum vulgare
(hemitoxin; hormone-toxin **conjugates** and use for chemical sterilization)
- IT Castration
(hormone-toxin **conjugates** and use for chemical sterilization)
- IT Secale cereale
Triticum aestivum
Zea mays
(ribosome-inhibiting **proteins**; hormone-toxin **conjugates** and use for chemical sterilization)
- IT **Drug delivery systems**
(targeted; hormone-toxin **conjugates** and use for chemical sterilization)
- IT Pokeweed
(toxins; hormone-toxin **conjugates** and use for chemical sterilization)
- IT 9034-40-6DP, Gonadotropin-releasing hormone, analogs, **conjugates** with toxins 59131-98-5DP, toxin **conjugates**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hormone-toxin **conjugates** and use for chemical sterilization)
- IT 148-82-3D, Melphalan, **conjugates** with hormones
20830-81-3D, Daunomycin, **conjugates** with hormones
23109-05-9D, α -Amanitin, **conjugates** with hormones
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hormone-toxin **conjugates** and use for chemical sterilization)
- IT 151-51-9, Carbodiimide 6539-14-6, 2-Iminothiolane 68181-17-9, N-Succinimidyl 3-(2-pyridyldithio) propionate 99933-15-0
RL: MSC (Miscellaneous)
(linker; hormone-toxin **conjugates** and use for chemical sterilization)
- IT 75037-46-6D, Gelonin, **conjugates** with hormones
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ribosome-inhibiting **proteins**; hormone-toxin **conjugates** and use for chemical sterilization)
- IT 20830-81-3D, Daunomycin, **conjugates** with hormones
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hormone-toxin **conjugates** and use for chemical sterilization)
- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,

(8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 35 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:224352 HCAPLUS

DOCUMENT NUMBER: 134:251211

TITLE: Monoclonal antibody to C-antigen: Prophylaxis and detection of cancer

INVENTOR(S): Dan, Michael D.; Maiti, Pradip K.; Kaplan, Howard A.

PATENT ASSIGNEE(S): Viventia Biotech, Inc., Can.

SOURCE: U.S., 56 pp., Cont.-in-part of U.S. Ser. No. 657,449, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6207153	B1	20010327	US 1997-862124	19970522 <--
CA 2255540	AA	19971127	CA 1997-2255540	19970522 <--
CN 1229436	A	19990922	CN 1997-194815	19970522 <--
NZ 505305	A	20020628	NZ 1997-505305	19970522 <--
KR 2000015893	A	20000315	KR 1998-709444	19981121 <--
AU 775448	B2	20040729	AU 2000-72432	20001220 <--
US 2003021779	A1	20030130	US 2001-782397	20010213 <--
US 2004091484	A1	20040513	US 2003-651453	20030829 <--
PRIORITY APPLN. INFO.:			US 1996-657449	B2 19960522 <--
			AU 1997-33696	A3 19970522 <--
			NZ 1997-332566	A1 19970522 <--
			US 1997-862124	A1 19970522 <--
			US 2001-782397	B1 20010213

ED Entered STN: 29 Mar 2001

AB The authors disclose preparation and sequence characterization of monoclonal antibody H11 that specifically binds to an antigen (termed "C-antigen") expressed by diverse tumors and tumor cell lines. The C-antigen was not found on normal cells. Also disclosed are **polynucleotides** and single chain antibodies based on H11 for application in therapy and tumor

imaging.
IC ICM A61K039-395
INCL 424138100
CC 15-3 (Immunochemistry)
Section cross-reference(s): 1, 8, 14
IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PAP (pokeweed antiviral **protein**), **conjugates**; with
antibody constructs targeting C-antigen of tumors)
IT Luminescent substances
(bioluminescent, **conjugates**; with antibody constructs
targeting C-antigen of tumors)
IT **Drug delivery systems**
(carriers; for antibody constructs targeting C-antigen of tumors)
IT Chemiluminescent substances
Fluorescent substances
(**conjugates**; with antibody constructs targeting C-antigen of
tumors)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**conjugates**; with antibody constructs targeting C-antigen of
tumors)
IT Radionuclides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**; with antibody constructs targeting C-antigen of
tumors)
IT Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**; with antibody constructs targeting C-antigen of
tumors)
IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, **conjugates**; with antibody constructs targeting
C-antigen of tumors)
IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxin A, **conjugates**; with antibody constructs targeting
C-antigen of tumors)
IT **Protein sequences**
cDNA sequences
(for antibodies and antibody constructs to C-antigen)
IT Signal **peptides**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fusion products; with antibody constructs to C-antigen of tumors)
IT **Peptides, biological studies**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP
(Properties); BIOL (Biological study); PROC (Process)
(hepta-; binding specificity for antibodies to C-antigen)
IT **Drug delivery systems**
(immunotoxins; antibodies and antibody constructs to C-antigen of
tumors)
IT Alkaloids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vinca, **conjugates**; with antibody constructs targeting
C-antigen of tumors)
IT 15750-15-9D, Indium isotope of mass 111, single-chain antibody
conjugates, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
study); BIOL (Biological study); USES (Uses)
(for imaging of tumors expressing C-antigen)

IT 200298-80-2
 RL: PRP (Properties)
 (nucleotide sequence; treatment and detection of cancer)

IT 200298-76-6 200298-78-8 200298-82-4 330490-79-4 331290-27-8, 6:
 PN: US6207153 SEQID: 6 unclaimed DNA 331290-28-9 331290-29-0
 331290-30-3 331290-31-4 331290-32-5 331290-34-7 331290-36-9
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; monoclonal antibody to
 C-antigen, Prophylaxis and detection of cancer)

IT 331290-25-6 331290-26-7 331290-33-6 331290-35-8
 RL: PRP (Properties)
 (unclaimed protein sequence; monoclonal antibody to
 C-antigen, Prophylaxis and detection of cancer)

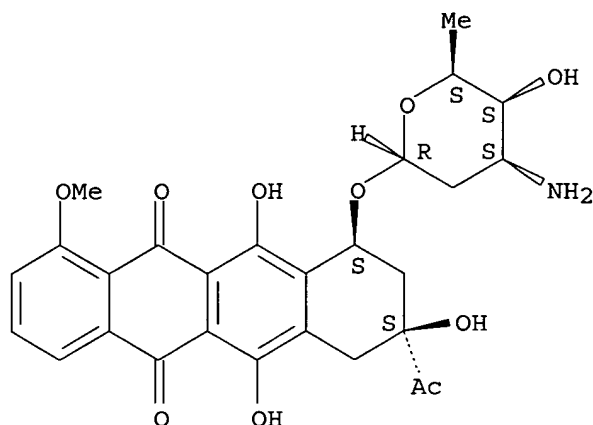
IT 50-18-0D, Cyclophosphamide, **conjugates** 50-44-2D,
 6-Mercaptopurine, **conjugates** 50-76-0D, Dactinomycin,
conjugates 51-21-8D, Fluorouracil, **conjugates**
 53-19-0D, Mitotane, **conjugates** 54-91-1D, Pipobroman,
conjugates 55-86-7D, **conjugates** 59-05-2D,
 Methotrexate, **conjugates** 66-75-1D, Uracil mustard,
conjugates 143-67-9D, Vinblastine sulfate, **conjugates**
 147-94-4D, Cytarabine, **conjugates** 148-82-3D, Melphalan,
conjugates 154-42-7D, Thioguanine, **conjugates**
 1404-00-8D, Mitomycin, **conjugates** 1406-72-0D, Restrictocin,
conjugates 2068-78-2D, Vincristine sulfate, **conjugates**
 4342-03-4D, Dacarbazine, **conjugates** 9013-93-8D, Phospholipase,
conjugates 9041-93-4D, Bleomycin sulfate, **conjugates**
 13010-47-4D, Lomustine, **conjugates** 15663-27-1D, Cisplatin,
conjugates 18883-66-4D, Streptozotocin, **conjugates**
 20830-81-3D, Daunorubicin, **conjugates** 23214-92-8D,
 Doxorubicin, **conjugates** 25316-40-9D, Adriamycin,
conjugates 33069-62-4D, Taxol, **conjugates**
 33419-42-0D, Etoposide, **conjugates** 41575-94-4D, Carboplatin,
conjugates 53910-25-1D, Pentostatin, **conjugates**
 59917-39-4D, Vindesine sulfate, **conjugates**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (with antibody constructs targeting C-antigen of tumors)

IT 20830-81-3D, Daunorubicin, **conjugates**
 25316-40-9D, Adriamycin, **conjugates**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (with antibody constructs targeting C-antigen of tumors)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S) - (9CI) (CA INDEX NAME)

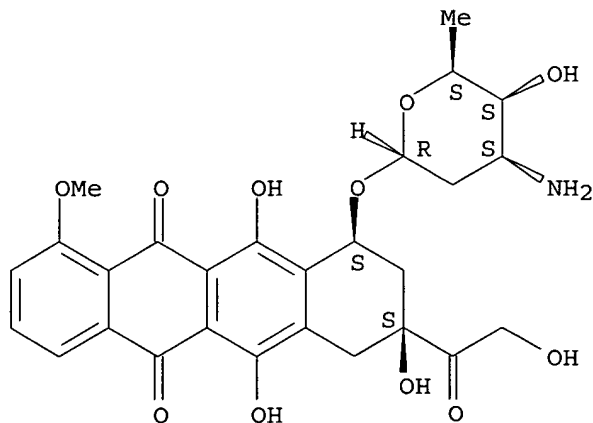
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 124 THERE ARE 124 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 36 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:568348 HCAPLUS

DOCUMENT NUMBER: 135:170778

TITLE: Anti-tissue factor antibody-chemotherapeutic agent **conjugates**

INVENTOR(S): Sekimori, Yasuo; Miyamoto, Hajime; Kawada, Hiromitsu; Nagao, Shunsuke

PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213804	A2	20010807	JP 2000-22898	20000131 <--
PRIORITY APPLN. INFO.:			JP 2000-22898	20000131 <--

ED Entered STN: 07 Aug 2001

AB The invention relates to an anti-tissue factor antibody-antitumor agent conjugate or an anti-tissue factor antibody-toxin conjugate with a linking agent providing improved drug targeting effect. An immunotoxin of anti-tissue factor antibody-gelonin conjugate was prepared with N-succinimidyl 3-(2-pyridyldithio)propionate, and its inhibitory effect on **protein** synthesis in J 82 human bladder carcinoma cells was examined

IC ICM A61K045-00
 ICS A61K039-395; A61K049-00; A61P035-00; C07K014-52; C07K014-745; C07K016-36; C07K019-00; C12P021-08

CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1, 15

IT Ricins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (A; anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with linking agents)

IT Toxins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (ML-I (mistletoe lectin I); anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with linking agents)

IT **Proteins, specific or class**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (PAP-S (pokeweed antiviral **protein**); anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with **linking** agents)

IT **Proteins, specific or class**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Tritin; anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with **linking** agents)

IT **Proteins, specific or class**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Volkesin; anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with **linking** agents)

IT Antitumor agents
Drug targeting
 (anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with linking agents)

IT Cytokines
 Interferons
 Interleukin 2
 Tumor necrosis factors
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (anti-tissue factor antibody-antitumor agent **conjugates** or anti-tissue factor antibody-toxin **conjugates** with linking agents)

IT **Proteins, specific or class**

- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(briodin; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dianthin 32; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Toxins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Pseudomonas**
(endotoxin; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Toxins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endotoxins; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Drug delivery systems**
(immunoconjugates; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Drug delivery systems**
(immunotoxins; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Peptides, biological studies**
Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**linking** agents; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Drug delivery systems**
(liposomes; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(luffin; anti-tissue factor antibody-antitumor agent **conjugates**
or anti-tissue factor antibody-toxin **conjugates** with
linking agents)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(momorcochin; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(momordins; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Antibodies**
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)

- (monoclonal; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Proteins, specific or class**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (saporins; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Albumins, biological studies**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (serum, human, serum **Albumin**, **linking** agents;
 anti-tissue factor antibody-antitumor agent **conjugates** or
 anti-tissue factor antibody-toxin **conjugates** with
linking agents)
- IT **Toxins**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (toxin A; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT **Proteins, specific or class**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (trichokirin; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking** agents)
- IT 75037-46-6DP, Gelonin, **conjugates** with anti-tissue factor
 antibodies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); IMF (Industrial manufacture); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (anti-tissue factor antibody-antitumor agent **conjugates** or
 anti-tissue factor antibody-toxin **conjugates** with **linking**
 agents)
- IT 9035-58-9, Blood-coagulation factor III
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (anti-tissue factor antibody-antitumor agent **conjugates** or
 anti-tissue factor antibody-toxin **conjugates** with **linking**
 agents)
- IT 50-07-7D, Mitomycin C, **conjugates** with anti-tissue factor
 antibodies 50-91-9D, 5-Fluoro-2'-deoxyuridine, **conjugates** with
 anti-tissue factor antibodies 54-62-6D, Aminopterin, **conjugates**
 with anti-tissue factor antibodies 57-22-7D, Vincristine,
conjugates with anti-tissue factor antibodies 59-05-2D,
 Methotrexate, **conjugates** with anti-tissue factor antibodies
 147-94-4D, Cytosine arabinoside, **conjugates** with anti-tissue
 factor antibodies 148-82-3D, Melphalan, **conjugates** with
 anti-tissue factor antibodies 316-46-1D, 5-Fluorouridine,
conjugates with anti-tissue factor antibodies 9014-02-2D,
 Neocarzinostatin, **conjugates** with anti-tissue factor antibodies
 11056-06-7D, Bleomycin, **conjugates** with anti-tissue factor
 antibodies 15663-27-1D, Cisplatin, **conjugates** with
 anti-tissue factor antibodies 20830-81-3D, Daunorubicin,
conjugates with anti-tissue factor antibodies 25316-40-9D
 , Adriamycin, **conjugates** with anti-tissue factor antibodies
 33069-62-4D, Paclitaxel, **conjugates** with anti-tissue factor
 antibodies 41575-94-4D, Carboplatin, **conjugates** with
 anti-tissue factor antibodies 53643-48-4D, Vindesine, **conjugates**
 with anti-tissue factor antibodies 65988-88-7D, modeccin,
conjugates with anti-tissue factor antibodies 95787-44-3D,
 Dodecandrin, **conjugates** with anti-tissue factor antibodies
 114977-28-5D, Docetaxel, **conjugates** with anti-tissue factor

antibodies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-tissue factor antibody-antitumor agent **conjugates** or
anti-tissue factor antibody-toxin **conjugates** with
linking agents)

IT 58-85-5, Biotin 585-84-2, cis-Aconitic acid 6041-98-1, Glutamic acid
dihydrazide 6539-14-6, 2-Iminoethiolane 6953-60-2, S-
Acetylmercaptosuccinic anhydride **9004-54-0**, **Dextran**,
biological studies 9044-05-7, Carboxymethyldextran 25322-68-3,
Polyethylene glycol 37293-51-9, Aminodextran 58626-38-3 59012-54-3
68181-17-9, N-Succinimidyl 3-(2-pyridyldithio)propionate 79886-55-8
103708-10-7 103848-62-0 115088-06-7 115616-51-8 150244-18-1
158913-22-5

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**linking agents**; anti-tissue factor antibody-antitumor agent
conjugates or anti-tissue factor antibody-toxin
conjugates with **linking agents**)

IT 112263-86-2

RL: PRP (Properties)
(unclaimed **protein** sequence; anti-tissue factor
antibody-chemotherapeutic agent **conjugates**)

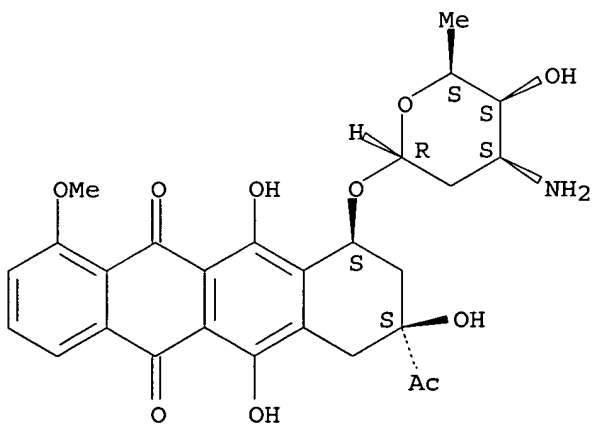
IT **20830-81-3D**, Daunorubicin, **conjugates** with anti-tissue
factor antibodies **25316-40-9D**, Adriamycin, **conjugates**
with anti-tissue factor antibodies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-tissue factor antibody-antitumor agent **conjugates** or
anti-tissue factor antibody-toxin **conjugates** with
linking agents)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

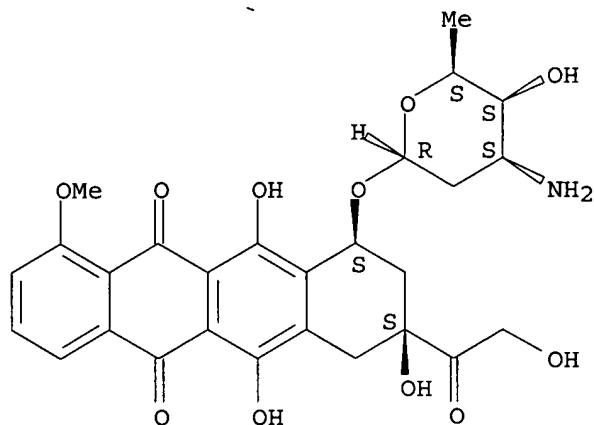
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-
1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 9004-54-0, **Dextran**, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (linking agents; anti-tissue factor antibody-antitumor agent
 conjugates or anti-tissue factor antibody-toxin
 conjugates with linking agents)
 RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L242 ANSWER 37 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:383983 HCAPLUS
 DOCUMENT NUMBER: 133:34431
 TITLE: Transport system **conjugate**
 INVENTOR(S): Imfeld, Dominik; Ludin, Christian; Schreier, Thomas
 PATENT ASSIGNEE(S): Pentapharm A.-G., Switz.
 SOURCE: PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032235	A1	20000608	WO 1999-CH567	19991126 <--
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2352555	AA	20000608	CA 1999-2352555	19991126 <--
EP 1133317	A1	20010919	EP 1999-955629	19991126 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

IE, SI, LT, LV, FI, RO

JP 2002535247	T2	20021022	JP 2000-584924	19991126 <--
AU 758903	B2	20030403	AU 2000-12565	19991126 <--
AU 2000012565	A5	20000619		
US 2002035243	A1	20020321	US 2001-866824	20010529 <--
PRIORITY APPLN. INFO.:			CH 1998-2354	A 19981126 <--
			WO 1999-CH567	W 19991126 <--

OTHER SOURCE(S): MARPAT 133:34431

ED Entered STN: 09 Jun 2000

AB A pharmaceutical and/or cosmetic active agent is conjugated, directly or via a linker, to an amino or carboxyl group on substituent Y of a lipophilic compound Y(NHCnH2n)rC(O)R [Y = amino acid or di- or **tripeptide** having ≥ 3 reactive NH₂ and/or CO₂H groups, or a C₂-8 triamine; RC(O) = (substituted) C₄-24 fatty acyl; n = 2, 3; r = 0, 1], where another amino group on Y is attached to a group C(O)(CH₂)mCH(SH)CH₂(CHR₁)pSH or its cyclic disulfide derivative, to facilitate transmembrane transport of the active agent into fibroblasts, keratinocytes, melanocytes, and Langerhans cells of the skin. Thus, α -MSH-induced melanin formation in S91 melanocytes was inhibited by treating the cells with a conjugate of tyrosinase-mimicking **peptide** with the transporter H-Lys(ϵ -DL-6,8-dithiooctanamide)-NHCH₂CH₂NHC(O)(CH₂)₆CH₃. Similarly, conjugates of cell growth modulators can be used to inhibit hyperproliferation of keratinocytes in treatment of psoriasis.

IC ICM A61K047-48

ICS A61K007-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 34

ST drug lipophilic **conjugate** transport skin; transdermal transportdrug lipophilic **conjugate**; cosmetic lipophilic **conjugate**
transport skin

IT Amino acids, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(acidic, derivs., **conjugates** with dermatol. and cosmetic agents; transport system **conjugate**)

IT Skin, disease

(aging; transport system **conjugate**)IT **Oligonucleotides**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(analogs, lipophilic **conjugates**; transport system **conjugate**)

IT Amino acids, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(basic, derivs., **conjugates** with dermatol. and cosmetic agents; transport system **conjugate**)

IT Inflammation

(cellulitis; transport system **conjugate**)IT **Dipeptides****Tripeptides**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)
 (derivs., **conjugates** with dermatol. and cosmetic agents;
 transport system **conjugate**)

IT Biological transport
 (facilitated diffusion; transport system **conjugate**)

IT Hair preparations
 (growth inhibitors; transport system **conjugate**)

IT Hair preparations
 (growth stimulants; transport system **conjugate**)

IT Skin
 (keratinocyte; transport system **conjugate**)

IT Antibiotics
 (lipophilic **conjugates**; transport system **conjugate**)

IT Androgens
 Estrogens
 Glucocorticoids
 Hormones, animal, biological studies
 Vitamins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (lipophilic **conjugates**; transport system **conjugate**)

IT Antitumor agents
 (melanoma; transport system **conjugate**)

IT Dermatitis
 (neurodermatitis; transport system **conjugate**)

IT Periodontium
 (periodontitis; transport system **conjugate**)

IT Cosmetics
 (skin-lightening; transport system **conjugate**)

IT Muscle
 (smooth; transport system **conjugate**)

IT Regeneration, animal
 (stimulants; transport system **conjugate**)

IT **Drug delivery systems**
 (topical; transport system **conjugate**)

IT **Drug delivery systems**
 (transdermal; transport system **conjugate**)

IT Acne
 Anti-inflammatory agents
 Antiarthritics
 Burn
 Cosmetics
 Dermatitis
 Eczema
 Fibroblast
 Immunostimulants
 Melanocyte
 Permeation enhancers
 Psoriasis
 Radical scavengers
 Skin preparations (pharmaceutical)
 Suntanning agents
 Wound healing promoters
 (transport system **conjugate**)

IT Amines, biological studies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); USES (Uses)

- (triamines, derivs., **conjugates** with dermatol. and cosmetic agents; transport system **conjugate**)
- IT 273928-50-ODP, derivs. 273928-51-1DP, derivs.
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (N-fatty acyl derivs., **conjugates** with dermatol. and cosmetic agents; transport system **conjugate**)
- IT 56-84-8P, L-Aspartic acid, biological studies 56-86-0P, L-Glutamic acid, biological studies 56-87-1P, L-Lysine, biological studies 57-10-3DP, Palmitic acid, amides, biological studies 57-11-4DP, Stearic acid, amides, biological studies 60-33-3DP, Linoleic acid, amides, biological studies 70-26-8P, L-Ornithine 107-92-6DP, Butyric acid, amides, biological studies 109-52-4DP, Valeric acid, amides, biological studies 111-14-8DP, Heptanoic acid, amides 112-80-1DP, Oleic acid, amides, biological studies 124-07-2DP, Caprylic acid, amides, biological studies 141-22-0DP, Ricinoleic acid, amides 142-62-1DP, Caproic acid, amides, biological studies 143-07-7DP, Lauric acid, amides, biological studies 305-62-4P, α,γ -Diaminobutyric acid 334-48-5DP, Capric acid, amides 372-75-8P, Citrulline 506-30-9DP, Arachic acid, amides 506-32-1DP, Arachidonic acid, amides 515-94-6P, α,β -Diaminopropionic acid 542-32-5P, 2-Aminoadipic acid 544-63-8DP, Myristic acid, amides, biological studies 556-50-3P, Glycylglycine 627-76-9P, 2-Aminoheptanedioic acid 687-69-4P, Alanylglycine 940-69-2P, 1,2-Dithiolane-3-pentanamide 1190-49-4P, Homocitrulline 2382-40-3DP, 9-Dodecenoic acid, amides 3054-07-7P, 2-Aminooctanedioic acid 3695-73-6P, Glycylalanine 4097-89-6P, Tris(2-aminoethyl)amine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (derivs., **conjugates** with dermatol. and cosmetic agents; transport system **conjugate**)
- IT 50-56-6, Oxytocin, biological studies 50-81-7, Vitamin C, biological studies 59-43-8, Vitamin B1, biological studies 68-26-8, Retinol 83-88-5, Vitamin B2, biological studies 1406-16-2, Vitamin D 1406-18-4, Vitamin E 8059-24-3, Vitamin B6 9002-79-3, MSH 9007-12-9, Calcitonin 12001-79-5, Vitamin K 15483-57-5 16679-58-6, Adiuretin 273928-52-2 273928-53-3 273928-54-4 273928-55-5 273928-56-6 273928-57-7 273928-58-8 273928-59-9 273928-60-2
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (lipophilic **conjugates**; transport system **conjugate**)
- IT 273928-61-3P 273928-62-4P 273928-63-5P 273928-64-6P 273928-65-7P 273928-66-8P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (transport system **conjugate**)
- IT 111-64-8, Octanoyl chloride 112-67-4, Palmitoyl chloride 1188-21-2 13734-28-6 29022-11-5 35661-60-0 40846-94-4 57260-73-8 71989-14-5 71989-18-9 71989-26-9 71989-33-8 71989-38-3 81379-52-4 84192-88-1 115416-38-1, 5-(Biotinamido)pentylamine 132388-59-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transport system **conjugate**)
- IT 54977-31-0P 273928-68-0P 273928-69-1P 273928-70-4P 273928-71-5P

273928-72-6P 273928-73-7P 273928-74-8P 273928-75-9P 273928-76-0P
273928-77-1P 273928-78-2P 273928-79-3P 273928-80-6P 273928-81-7P
273928-82-8P 273928-83-9P 273928-85-1P 273928-86-2P 273928-87-3P
273928-89-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(transport system **conjugate**)

IT 50-81-7, Vitamin C, biological studies 68-26-8, Retinol

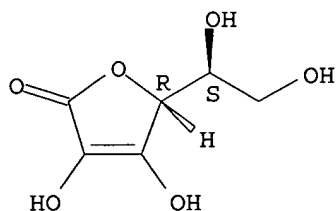
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)

(lipophilic **conjugates**; transport system **conjugate**)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

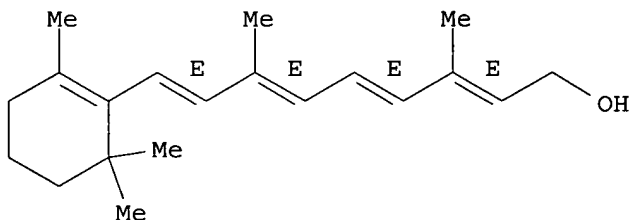
Absolute stereochemistry.



RN 68-26-8 HCAPLUS

CN Retinol (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 38 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:351544 HCAPLUS

DOCUMENT NUMBER: 133:9081

TITLE: Modified and truncated penetratin derivatives as
membrane translocation carriers for drug transport

INVENTOR(S): Fischer, M. Peter; Zhelev, Nikolai

PATENT ASSIGNEE(S): Cyclacel Limited, UK

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000029427      A2      20000525      WO 1999-GB3750      19991111 <--
WO 2000029427      A3      20001005
W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
    CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
    IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
    MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
    SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
    AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
    DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
    CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2350919          AA      20000525      CA 1999-2350919      19991111 <--
GB 2346616          A1      20000816      GB 1999-26719        19991111 <--
GB 2346616          B2      20040421
EP 1135410          A2      20010926      EP 1999-954212      19991111 <--
R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO
JP 2002530059       T2      20020917      JP 2000-582414      19991111 <--
AU 766489           B2      20031016      AU 2000-10630        19991111 <--
US 2002098236       A1      20020725      US 2001-854204      20010511 <--
PRIORITY APPLN. INFO.:
GB 1998-25000        A      19981113 <--
GB 1998-25001        A      19981113 <--
GB 1999-2522         A      19990204 <--
GB 1999-2525         A      19990204 <--
GB 1999-14578        A      19990622 <--
WO 1999-GB3750       W      19991111 <--
US 1999-438460       A3      19991112 <--

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ED Entered STN: 26 May 2000

AB The invention relates to modified and truncated forms of the membrane transport vector penetratin, a **peptide** comprising residues 45-58 of the Antennapedia homeodomain **protein**. Such truncated forms include 7-mer **peptides** that may in themselves include further variation. Such smaller or truncated forms of penetratin are advantageous in that they are more acceptable to the pharmaceutical industry as delivery carrier moieties, by virtue of the carrier-cargo conjugate having an advantageous immunogenicity, solubility, and clearance, and in some cases advantageous efficacy as compared to using a conjugate comprised of full length penetratin. Carrier moieties are synthetically linked to a cargo moiety selected from p21WAF-derived **peptides**, p16-derived **peptides** or the drugs roscovitine, taxol, or a podophyllotoxin. The truncated penetratin-podophyllotoxin conjugate, for example, is more effective in terms of anti-proliferative activity on tumor cells while exhibiting lower generalized toxicity.

IC ICM C07K014-00

CC 63-5 (Pharmaceuticals)

IT **Peptides, biological studies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Fen1, **conjugates**; modified and truncated penetratin derivs.
as membrane translocation carriers for drug transport)

IT Intercalation

(agents, **conjugates**; modified and truncated penetratin
derivs. as membrane translocation carriers for drug transport)

IT Nutrients

(anti-, **conjugates**; modified and truncated penetratin derivs.
as membrane translocation carriers for drug transport)

IT Antibiotics

Antitumor agents

Cyclin dependent kinase inhibitors

Drugs

- (**conjugates**; modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT Anthracyclines
Antisense **oligonucleotides**
DNA
Gene
Heterocyclic compounds
Natural products
 Nucleosides, biological studies
 Nucleotides, biological studies
 Oligonucleotides
RNA
Taxanes
cDNA
p53 (**protein**)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**conjugates**; modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT **Drug delivery systems**
 (modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT Cyclin dependent kinase inhibitors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (p16INK4, **conjugates**; modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT Cyclin dependent kinase inhibitors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (p21CIP1/WAF1, **conjugates**; modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT 9002-03-3, Dihydrofolate reductase 9031-61-2, Thymidylate synthase 80449-01-0, DNA topoisomerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors, **conjugates** of; modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT 289-95-2D, Pyrimidine, analogs, **conjugates**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT 518-28-5DP, Podophyllotoxin, **conjugates** 4375-07-9DP, Epipodophyllotoxin, **conjugates** 6559-91-7DP, 4'-Demethyl-Epipodophyllotoxin, **conjugates** 7689-03-4DP, Camptothecin, **conjugates** 33069-62-4DP, Paclitaxel, **conjugates** 33419-42-ODP, Etoposide, **conjugates**
254893-90-8P 254894-03-6P 254894-06-9P 254894-14-9P 254894-44-5P
254894-46-7P 254894-51-4P 254894-57-0P 254894-59-2P 254894-61-6P
254894-72-9P 254894-76-3P 264882-32-8P 264882-33-9P 264882-34-0P
264882-35-1P 264882-36-2P 264882-37-3P 264882-38-4P 264882-39-5P
264882-40-8P 264882-41-9P 264882-42-0P 264882-43-1P 264882-44-2P
264882-45-3P 264882-46-4P 264882-47-5P 264882-48-6P 264882-49-7P
264882-50-0P 264882-51-1P 264882-52-2P 264882-53-3P 264882-54-4P
264882-55-5P 264882-56-6P 264882-57-7P 264882-58-8P 264882-59-9P
264882-60-2P 264882-61-3P 264882-62-4P 264882-63-5P 264882-64-6P
264882-65-7P 264882-66-8P 264882-67-9P 264882-68-0P 264882-69-1P
264882-70-4P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)
- IT 50-44-2D, 6-Mercaptopurine, **conjugates** 51-21-8D, 5-Fluorouracil, **conjugates** 54-62-6D, Aminopterin,

conjugates 57-22-7D, Vincristine, **conjugates**
 59-05-2D, Methotrexate, **conjugates** 91-18-9D, Pteridine,
conjugates 107-92-6D, Butyric acid, **conjugates**
 120-73-0D, 1H-Purine, derivs., **conjugates** 147-94-4D, Cytosine
 arabinoside, **conjugates** 148-82-3D, Melphalan,
conjugates 302-79-4D, Retinoic acid, **conjugates**
 528-74-5D, Dichloromethotrexate, **conjugates** 865-21-4D,
 Vinblastine, **conjugates** 1402-38-6D, Actinomycin,
conjugates 2410-93-7D, Methopterin, **conjugates**
 4055-39-4D, Mitomycin A, **conjugates** 10169-34-3D, Mitomycin D,
conjugates 10540-29-1D, Tamoxifen, **conjugates**
 11056-06-7D, Bleomycin, **conjugates** 14278-49-0D,
 Acetylspermidine, **conjugates** 15663-27-1D, Cis-Platinum,
conjugates 20830-81-3D, Daunorubicin, **conjugates**
 23214-92-8D, Doxorubicin, **conjugates** 23360-92-1D, Leurosine,
conjugates 41575-94-4D, Carboplatinum, **conjugates**
 50935-04-1D, **conjugates** 52081-33-1D, Mitomycins,
conjugates 53643-48-4D, Vindesine, **conjugates**
 62996-74-1D, Staurosporin, **conjugates** 67995-68-0D,
 Tallysomyacin, **conjugates** 97682-44-5D, Irinotecan,
conjugates 101622-51-9D, Olomoucine, **conjugates**
 114977-28-5D, Docetaxel, **conjugates** 146426-40-6D,
 Flavopiridol, **conjugates** 186692-46-6D, Roscovitine,
conjugates 188842-14-0 189036-91-7 189232-42-6D, Bohemine,
conjugates 254894-97-8 271572-83-9 271572-84-0 271572-85-1
 271572-86-2 271572-87-3 271572-88-4 271572-89-5 271572-90-8
 271572-91-9 271572-92-0 271572-93-1 271572-94-2 271572-95-3
 271572-96-4 271572-97-5 271572-98-6 271572-99-7 271573-00-3
 271573-01-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (modified and truncated penetratin derivs. as membrane translocation
 carriers for drug transport)

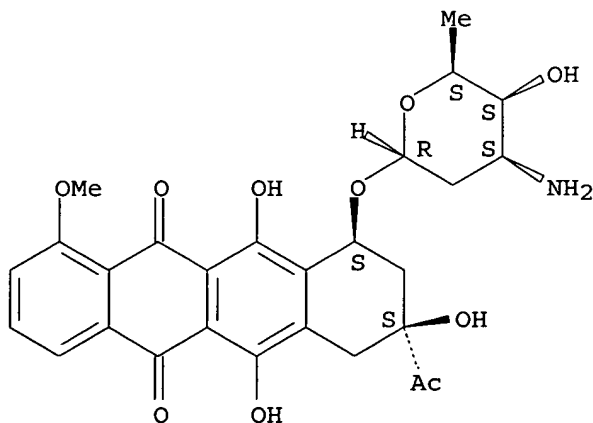
IT 20830-81-3D, Daunorubicin, **conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (modified and truncated penetratin derivs. as membrane translocation
 carriers for drug transport)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 39 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:84648 HCAPLUS

DOCUMENT NUMBER: 132:141941

TITLE: **Conjugates and fusion proteins** for treating secondary tissue damage and other inflammatory conditions and disorders

INVENTOR(S): Mcdonald, John R.; Coggins, Philip J.

PATENT ASSIGNEE(S): Osprey Pharmaceuticals Limited, Can.

SOURCE: PCT Int. Appl., 204 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000004926	A2	20000203	WO 1999-CA659	19990721 <--
WO 2000004926	A3	20001102		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2335105	AA	20000203	CA 1999-2335105	19990721 <--
AU 9948918	A1	20000214	AU 1999-48918	19990721 <--
EP 1098664	A2	20010516	EP 1999-932572	19990721 <--
EP 1098664	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002521019	T2	20020716	JP 2000-560919	19990721 <--
AT 246517	E	20030815	AT 1999-932572	19990721 <--
EP 1346731	A1	20030924	EP 2003-76150	19990721 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
ES 2205849	T3	20040501	ES 1999-932572	19990721 <--
US 2002168370	A1	20021114	US 2001-792793	20010222 <--
HK 1037133	A1	20031107	HK 2001-107546	20011030 <--
US 2003215421	A1	20031120	US 2003-375209	20030224 <--
AU 2004202331	A1	20040624	AU 2004-202331	20040527 <--
PRIORITY APPLN. INFO.:				
			US 1998-120523	A2 19980722 <--
			US 1998-155186P	P 19980722 <--
			AU 1999-48918	A3 19990721 <--
			EP 1999-932572	A3 19990721 <--
			WO 1999-CA659	W 19990721 <--
			US 1999-360242	A3 19990722 <--
			US 1999-453851	A3 19991202 <--
			US 2001-792793	A1 20010222

ED Entered STN: 04 Feb 2000

AB Conjugates containing as a ligand a chemokine receptor-targeting agent, such as chemokines, and a targeted agent, such as a toxin are provided. These conjugates are used to treat inflammatory responses associated with activation, proliferation and migration of immune effector cells, including leukocyte cell types, neutrophils, macrophages, and eosinophils. The conjugates provided herein are used to lessen or inhibit these processes to prevent or at least lessen the resulting secondary effects.

In particular, the conjugates are used to target toxins to receptors on secondary tissue damage-promoting cells. The ligand moiety can be selected to deliver the cell toxin to such secondary tissue damage-promoting cells as mononuclear phagocytes, leukocytes, natural killer cells, dendritic cells, and T and B lymphocytes, thereby suppressing the proliferation, migration, or physiolo. activity of such cells. Among preferred conjugates are fusion **proteins** having a chemokine, or a biol. active fragment thereof, as the ligand moiety linked to a cell toxin via a **peptide** linker of from 2 to about 60 amino acid residues.

- IC ICM A61K047-48
- CC 63-5 (Pharmaceuticals)
- Section cross-reference(s): 15
- ST antiinflammatory drug targeting fusion **protein** chemokine toxin sequence
- IT AIDS (disease)
- AIDS (disease)
 - (AIDS dementia complex; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Mental disorder
- Mental disorder
 - (AIDS dementia; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 - (CTAP III, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Intestine, disease
- (Crohn's; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 - (ENA-78, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 - (GCP-2, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 - (GRO- α , **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 - (GRO- α , **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

- (Biological study); PROC (Process); USES (Uses)
 (GRO- β , **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (GRP- γ , **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (IP-10, **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Kidney, disease
 (IgA nephropathy; **conjugates** and fusion **proteins**
 for treating secondary tissue damage and other inflammatory conditions
 and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (LAPF-4, **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Lipoprotein receptors
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (LDL; **conjugates** and fusion **proteins** for treating
 secondary tissue damage and other inflammatory conditions and
 disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (MIP-3, **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (Mig (monokine induced by interferon- γ), **conjugates;**
conjugates and fusion **proteins** for treating secondary
 tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)
 (NAP-2, **conjugates; conjugates** and fusion
proteins for treating secondary tissue damage and other
 inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); THU (Therapeutic use); BIOL
 (Biological study); PROC (Process); USES (Uses)

(PBP, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), bryodins, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), dianthin 30, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), dianthin 32, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), lychnin, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), mapalmin, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Barley

Corn

Flax

(RIP of; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Arthritis

(Reiter's syndrome; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (SDF-1 α (stromal-derived factor-1 α), **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (SDF-1 β (stromal-derived factor-1 β), **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (SDF-2, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Toxins
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
 (Shiga; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
 (adenocarcinoma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Brain, disease
 (adrenoleukodystrophy; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Respiratory distress syndrome
 (adult; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Spinal column
 (ankylosing spondylitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Nutrients
 (anti-; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antiarteriosclerotics
 (antiatherosclerotics; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Aspergillus
 (aspergillosis from; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Astrocyte
 Astrocyte
 (astrocytoma, inhibitors; **conjugates** and fusion

- proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(astrocytoma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Lung, disease
(bronchopulmonary dysplasia; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Nervous system
(central, inflammation; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Nervous system
(central, injury; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Fusion **proteins** (chimeric **proteins**)
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chemokine receptor-binding; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Antibodies**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(chemokine receptor-binding; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Leukocyte
(chemokine receptors of; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Meningitis
(chorio-; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
(choroiditis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Fatigue, biological
(chronic fatigue syndrome; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Intestine, disease
(colitis, chronic; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Alzheimer's disease
Anti-inflammatory agents
Antiarthritics
Antiparkinsonian agents
Antirheumatic agents
Antitumor agents
Atherosclerosis
B cell (lymphocyte)

Basophil
Behcet's syndrome
Bronchodilators
Cell migration
Cell proliferation
Coupling agents
Dendritic cell
Down's syndrome

Drug targeting

Encephalitis
Encephalomyelitis
Eosinophil
Genetic vectors
Granuloma
Heart, disease
Hodgkin's disease
Immunosuppressants
Inflammation
Molecular cloning
Multiple sclerosis
Neutrophil
Osteoarthritis
Parkinson's disease
Plasmid vectors
Pneumonia

Protein sequences

Sarcoidosis
T cell (lymphocyte)
Venoms
cDNA library
cDNA sequences

(**conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)

IT **Fusion proteins** (chimeric **proteins**)

RL: BAC (Biological activity or effector, except adverse); BPN
(Biosynthetic preparation); BPR (Biological process); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); PROC (Process); USES (Uses)

(**conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)

IT **Abrins**

Ricins

Toxins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); PEP (Physical, engineering or chemical process); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)

IT **Nucleic acids**

RL: BPN (Biosynthetic preparation); PEP (Physical, engineering or chemical
process); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); PROC (Process); USES (Uses)

(**conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)

IT **Interleukin 3**

Macrophage inflammatory **protein 2**

- RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT G **protein**-coupled receptors
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Primers (**nucleic acid**)
RL: PRP (Properties)
(**conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Trichosanthin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eotaxin
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Interleukin 1
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Interleukin 12
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Interleukin 13
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Interleukin 2
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Interleukin 4

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Interleukin 5

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Interleukin 6

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Interleukin 8

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Macrophage inflammatory protein 1 α

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Macrophage inflammatory protein 1 β

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Monocyte chemoattractant protein-1

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT RANTES (chemokine)

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates; conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Neoplasm

(cytokine-regulated; **conjugates and fusion proteins**
for treating secondary tissue damage and other inflammatory conditions and disorders)

IT Nervous system

- (degeneration; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
(diabetic retinopathy, proliferative; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(diphtheria; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Lung, disease
Pneumonia
(eosinophilic; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Pseudomonas
(exotoxin; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(exotoxins, of Pseudomonas; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Lung, disease
(fibrosis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokines
Toxins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fusion **proteins**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Chemokine receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(fusion-**protein** ligands for; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Neuroglia
Neuroglia
(glioblastoma, inhibitors; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(glioblastoma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Neuroglia
Neuroglia
(glioma, inhibitors; **conjugates** and fusion **proteins**

- for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(glioma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Kidney, disease
(glomerulonephritis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
Joint, anatomical
Lung, disease
(inflammation; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Intestine, disease
(inflammatory; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Lung, neoplasm
Lung, neoplasm
(inhibitors; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, i.m.; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, i.p.; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, i.v.; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, intraarticular; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, intracisternal; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, intradermal; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(injections, intraventricular; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Spinal cord
(injury; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(intratracheal; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

- disorders)
- IT Rheumatoid arthritis
(juvenile; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Antitumor agents
(leukemia; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Brain, disease
(leuko-; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT **Peptides, properties**
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)
(**linkers**; **conjugates** and fusion **proteins**
for treating secondary tissue damage and other inflammatory conditions
and disorders)
- IT **Drug delivery systems**
(local; **conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)
- IT Antitumor agents
Antitumor agents
(lung; **conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)
- IT Kidney, disease
(lupus nephritis; **conjugates** and fusion **proteins**
for treating secondary tissue damage and other inflammatory conditions
and disorders)
- IT Antitumor agents
(lymphoma; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Chemokines
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
(Physical, engineering or chemical process); THU (Therapeutic use); BIOL
(Biological study); PROC (Process); USES (Uses)
(macrophage inflammatory **protein**, γ , **conjugates**
; **conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)
- IT Antitumor agents
(mammary gland; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Antitumor agents
(melanoma; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Meninges
(meningioma; **conjugates** and fusion **proteins** for
treating secondary tissue damage and other inflammatory conditions and
disorders)
- IT Neuroglia
(microglia, microglioma inhibitors; **conjugates** and fusion
proteins for treating secondary tissue damage and other
inflammatory conditions and disorders)

- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(momordins, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Antibodies**
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(**monoclonal**; **conjugates** and fusion **proteins** for treating **secondary** tissue damage and other inflammatory conditions and disorders)
- IT **Chemokines**
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monocyte chemoattractant **protein 3**, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Cytokines**
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monocyte chemoattractant **protein 4**, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Cytokines**
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monocyte chemoattractant **protein 5**, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Chemokines**
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monocyte chemoattractant **protein-2**, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Phagocyte**
(mononuclear; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Antitumor agents**
(myeloma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Lymphocyte**
(natural killer cell; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Mammary gland**
Mammary gland
Prostate gland
Prostate gland
(neoplasm, inhibitors; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions)

- and disorders)
- IT Kidney, disease
(nephritis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Neuroglia
Neuroglia
(oligodendroglioma, inhibitors; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(oligodendroglioma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(ophthalmic; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Nose
(polyposis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(prostate gland; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Arthritis
(psoriatic arthritis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Arthritis
(reactive; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
(retinitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Nose
(rhinitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(saporins, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Antitumor agents
(sarcoma; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
(scleritis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Respiratory tract
(sinusitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)

- disorders)
- IT Venoms
(snake; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Spinal column
(spondyloarthropathy; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Brain, disease
(spongiform encephalopathy; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Brain, disease
(stroke; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(targeted; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Thyroid gland, disease
(thyroiditis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Drug delivery systems**
(topical; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Bacteria (Eubacteria)
Insect (Insecta)
Plant (Embryophyta)
Spider
(toxins of; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Intestine, disease
(ulcerative colitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Biological transport
(uptake; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Eye, disease
(uveitis; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Glycoproteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(α -momorcharins, **conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT **Macroglobulins**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(α 2-; **conjugates** and fusion **proteins** for

- treating secondary tissue damage and other inflammatory conditions and disorders)
- IT Glycoproteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(β -momorcharins; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 51-17-2, Benzimidazole 84-65-1, Anthraquinone 120500-15-4, Leinamycin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA-cleaving; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 256633-15-5P
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 50-07-7, Mitomycin c 51-21-8, 5-Fluorouracil 55-86-7, Nitrogen mustard 59-05-2, Methotrexate 148-82-3, Melphalan 11000-04-7D, Colicin, **conjugates** 20830-81-3, Daunomycin 23214-92-8, Doxorubicin 65988-88-7, Modeccin 75037-46-6D, Gelonin, **conjugates** 91933-11-8, Volkensin 95787-44-3D, Dodecandrin, **conjugates** 160674-53-3D, Luffin a, **conjugates** 160674-54-4D, Luffin b, **conjugates**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 9003-98-9, Dnase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 81627-83-0, Mcsf 83869-56-1, Gmcsf 143011-72-7, Gcsf
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates**; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 69-78-3 15791-08-9 68181-17-9 72252-96-1 88442-68-6, S-(2-Pyridylthio)-L-cysteine 106145-13-5 115616-51-8 150244-18-1 158913-22-5 160854-54-6 199804-25-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(cross-linker; **conjugates** and fusion **proteins** for treating secondary tissue damage and other inflammatory conditions and disorders)
- IT 256633-14-4P
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological

study); PREP (Preparation)

(**nucleotide** sequence; **conjugates** and fusion
proteins for treating secondary tissue damage and other
inflammatory conditions and disorders)

IT 203780-20-5 225895-00-1 256633-43-9, 7: PN: WO0004926 SEQID: 40
unclaimed DNA 256633-44-0, 8: PN: WO0004926 SEQID: 41 unclaimed DNA
256633-45-1, 9: PN: WO0004926 SEQID: 42 unclaimed DNA 256633-46-2
256633-47-3 256633-48-4 256633-49-5 256633-50-8 256633-51-9
256633-52-0 256633-53-1 256633-54-2 256633-55-3 256633-56-4
256633-57-5 256633-58-6 256633-59-7 256633-60-0 256633-61-1
256633-62-2 256633-63-3 256633-64-4 256633-65-5 256633-66-6
256633-67-7 256633-68-8 256633-69-9

RL: PRP (Properties)

(unclaimed **nucleotide** sequence; **conjugates** and
fusion **proteins** for treating secondary tissue damage and
other inflammatory conditions and disorders)

IT 2543-43-3 99283-10-0, Colony-stimulating factor 2 (human clone pHG25
protein moiety reduced) 102619-52-3, Lymphokine MIP 1 α
(human clone pLD78 macrophage inflammatory reduced) 104950-39-2,
Interleukin 4 (human clone 46 **protein** moiety reduced)
111906-18-4, Interleukin 3 (human clone D11 **protein** moiety
reduced) 112002-52-5, Toxin (Shigella dysenteriae A-subunit reduced)
112487-62-4, Interleukin 8 (human clone 3-10C reduced) 112871-94-0,
Toxin SLT-II (bacteriophage 933W A-subunit precursor reduced)
117216-60-1, **Protein** (human T-lymphocyte gene RANTES reduced)
118899-93-7, Melanoma growth stimulatory activity (human clone pMGSA5-2/3
isoform α reduced) 121853-02-9, Lymphokine MIP 1 β (human
clone pAT744 macrophage inflammatory reduced) 124147-31-5, Lymphokine
MCP 1 (human **protein** moiety reduced) 124760-57-2,
Protein MAP (Mirabilis jalapa clone pMH2 reduced) 128794-97-8,
Trichosanthes (Trichosanthes kirilowii strain Maximowicz) 130838-28-7
131199-57-0, Lymphokine MIP 2 β (human clone hMIP-2-4a macrophage
inflammatory reduced) 131199-58-1, Lymphokine MIP 2 α (human clone
hMIP-2-5a macrophage inflammatory reduced) 141961-54-8, **Protein**
(human sialoglycoprotein LRP-associated) 143973-96-0, Cytokine (human
clone NC28 **protein** moiety reduced) 150243-58-6 150243-59-7
153177-60-7 188204-50-4, 24-270-Bryodin 1 (Bryodin dioica) 189582-41-0
189704-25-4, Eotaxin (human clone pVL141) 194675-15-5, Dendrokinin (human
clone SHO46) 197665-51-3 256633-70-2 256633-71-3 256633-72-4
256633-73-5 256649-82-8 256649-85-1

RL: PRP (Properties)

(unclaimed **protein** sequence; **conjugates** and fusion
proteins for treating secondary tissue damage and other
inflammatory conditions and disorders)

IT 256504-33-3 256504-34-4 256504-35-5 256504-36-6 256504-37-7

RL: PRP (Properties)

(unclaimed sequence; **conjugates** and fusion **proteins**
for treating secondary tissue damage and other inflammatory conditions
and disorders)

IT 20830-81-3, Daunomycin

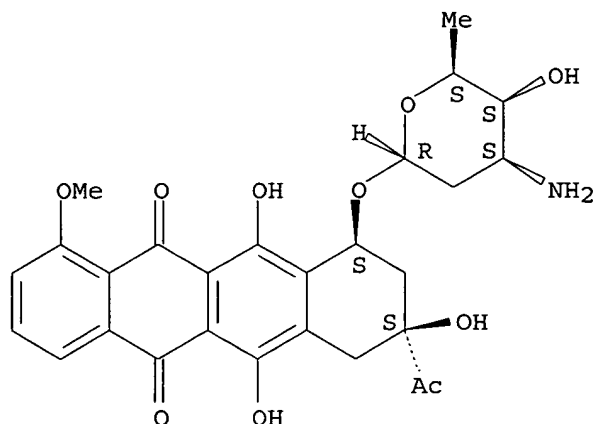
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); PEP (Physical, engineering or chemical process); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**conjugates** and fusion **proteins** for treating
secondary tissue damage and other inflammatory conditions and
disorders)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 40 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:53434 HCAPLUS

DOCUMENT NUMBER: 132:106961

TITLE: Cancer treatment methods using therapeutic
conjugates that bind to aminophospholipids

INVENTOR(S): Thorpe, Philip E.; Ran, Sophia

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 266 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000002587	A1	20000120	WO 1999-US15668	19990712 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2331789	AA	20000120	CA 1999-2331789	19990712 <--
AU 9950958	A1	20000201	AU 1999-50958	19990712 <--
AU 750414	B2	20020718		
BR 9912053	A	20010403	BR 1999-12053	19990712 <--
EP 1098665	A1	20010516	EP 1999-935491	19990712 <--
EP 1098665	B1	20030108		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6312694	B1	20011106	US 1999-351457	19990712 <--
JP 2002520297	T2	20020709	JP 2000-558846	19990712 <--
AT 230614	E	20030115	AT 1999-935491	19990712 <--
ES 2188202	T3	20030616	ES 1999-935491	19990712 <--
NZ 508873	A	20031031	NZ 1999-508873	19990712 <--
US 6818213	B1	20041116	US 1999-351598	19990712 <--

US 6783760	B1	20040831	US 2001-819386	20010328 <--
HK 1038498	A1	20040116	HK 2001-108089	20011116 <--
US 2005089523	A1	20050428	US 2004-988245	20041112 <--
US 2006083745	A1	20060420	US 2005-254137	20051019 <--

PRIORITY APPLN. INFO.:

			US 1998-92589P	P 19980713 <--
			US 1998-110600P	P 19981202 <--
			US 1999-351149	A1 19990712 <--
			US 1999-351457	A3 19990712 <--
			US 1999-351598	A1 19990712 <--
			WO 1999-US15668	W 19990712 <--

ED Entered STN: 23 Jan 2000

AB Disclosed is the surprising discovery that aminophospholipids, such as phosphatidylserine and phosphatidylethanolamine, are specific, accessible and stable markers of the luminal surface of tumor blood vessels. The present invention thus provides aminophospholipid-targeted diagnostic and therapeutic constructs for use in tumor intervention. Antibody-therapeutic agent conjugates and constructs that bind to aminophospholipids are particularly provided, as are methods of specifically delivering therapeutic agents, including toxins and coagulants, to the stably-expressed aminophospholipids of tumor blood vessels, thereby inducing thrombosis, necrosis and tumor regression.

IC ICM A61K047-48

CC ICS A61K049-00; A61K049-04; A61K051-10

CC 15-3 (Immunochemistry)

IT Section cross-reference(s): 1, 3, 8, 63

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A chain **conjugate**; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT Ricins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A, **conjugate**; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT Selectins

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(E-; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT **Immunoglobulins**

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(G; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT Cell adhesion molecules

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ICAM-1 (intercellular adhesion mol. 1); anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT **Immunoglobulins**

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(M; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT Histocompatibility antigens

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(MHC (major histocompatibility complex), class II; anti-

- aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Imaging agents
(NMR; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Selectins
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(P-; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(RIP (ribosome-inactivating **protein**), **conjugate**; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Growth factor receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(TIE; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Cell adhesion molecules
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(VCAM-1; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Diagnosis
(agents; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Phospholipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(amine-containing; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Angiogenic factors
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(angiopoietin 1-4; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Nutrients
(anti-, **conjugate** with antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Angiogenesis inhibitors
Antitumor agents
Chemotherapy
Crosslinking agents
Cytotoxic agents
DNA sequences
Drug targeting
Drugs
Hybridoma
Neoplasm
Protein sequences
Test kits
Vipera russelli
X-ray
(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT **Antibodies**
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Endoglyns
Fibroblast growth factor receptors
Fibronectins
Pleiotrophins
Vascular endothelial growth factor receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Phosphatidylethanolamines, biological studies
Phosphatidylserines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Fusion **proteins** (chimeric **proteins**)
Ligands
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT **Kininogens**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Disease, animal
(anti-aminophospholipid antibody-associated; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Animal cell
(antibody-producing; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Molecular cloning
(antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Necrosis
Thrombosis
(antitumor; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Chemistry
(chemical compds., X-ray-detectable; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Alkylating agents, biological
Antibiotics
(**conjugate** with antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Cytokines
Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugate** with antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Anthracyclines
Hepatocyte growth factor
Platelet-derived growth factors
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (**conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Ricins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, deglycosylated; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Coagulants
(**conjugates**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, **conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Sialoglycoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(endosialin; anti-aminophospholipid antibody **conjugates** with
diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Blood vessel
(endothelium; anti-aminophospholipid antibody **conjugates** with
diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Lipid A
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endotoxin; anti-aminophospholipid antibody **conjugates** with
diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endotoxins, **conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Pseudomonas
(exotoxin **conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, **conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT **Immunoglobulins**
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(**fragments**, scFv, Fv, Fab', or F(ab')₂; anti-
aminophospholipid antibody **conjugates** with diagnostic or
therapeutic agent for targeting tumor blood vessels)
- IT Apoptosis
(inducing agent; anti-aminophospholipid antibody **conjugates**
with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT DNA formation
(inhibitor **conjugate**; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
tumor blood vessels)
- IT **Drug delivery systems**
(injections, i.v.; anti-aminophospholipid antibody **conjugates**
with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT **Antibodies**

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (monoclonal; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

- IT Animal
 (non-human; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Lymphocyte
 (peripheral blood; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Blood
 (peripheral; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT **Proteins, specific or class**
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (phosphatidylserine-binding; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Proliferation inhibition
 (proliferation inhibitors; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Venoms
 (snake, Russell's viper; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Radionuclides, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (therapeutic; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Bacteria (Eubacteria)
- Fungi
- Plant (Embryophyta)
 (toxin **conjugate**; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Mouse
 (transgenic; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Antigens
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (tumor-associated, prostate-specific membrane antigen; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Alkaloids, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vinca, **conjugate** with antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Blood-coagulation factors
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vitamin K-dependent; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Integrins
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU

- (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 ($\alpha\text{v}\beta 3$; anti-aminophospholipid antibody **conjugates**
 with diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Transforming growth factors
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (β -; anti-aminophospholipid antibody **conjugates** with
 diagnostic or therapeutic agent for targeting tumor blood vessels)
- IT Transforming growth factor receptors
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU
 (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (β -transforming growth factor; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
 tumor blood vessels)
- IT 9001-29-0, Factor X
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (activator of Russell's viper; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
 tumor blood vessels)
- IT 178097-40-0 178097-42-2 255859-41-7
 RL: PRP (Properties)
 (amino acid sequence; anti-aminophospholipid antibody
conjugates with diagnostic or therapeutic agent for targeting
 tumor blood vessels)
- IT 7429-91-6D, Dysprosium, trivalent and **conjugate**, biological
 studies 7439-89-6D, Iron, divalent or trivalent and **conjugate**,
 biological studies 7439-91-0D, Lanthanum, trivalent and
conjugate, biological studies 7439-92-1D, Lead, divalent and
conjugate, biological studies 7439-96-5D, Manganese, divalent
 and **conjugate**, biological studies 7440-00-8D, Neodymium,
 trivalent and **conjugate**, biological studies 7440-02-0D,
 Nickel, divalent and **conjugate**, biological studies 7440-19-9D,
 Samarium, trivalent and **conjugate**, biological studies
 7440-27-9D, Terbium, trivalent and **conjugate**, biological studies
 7440-47-3D, Chromium, trivalent and **conjugate**, biological
 studies 7440-48-4D, Cobalt, divalent and **conjugate**, biological
 studies 7440-50-8D, Copper, divalent and **conjugate**, biological
 studies 7440-52-0D, Erbium, trivalent and **conjugate**,
 biological studies 7440-54-2D, Gadolinium, trivalent and
conjugate, biological studies 7440-57-5D, **Gold**,
 trivalent and **conjugate**, biological studies 7440-60-0D,
 Holmium, trivalent and **conjugate**, biological studies
 7440-62-2D, Vanadium, divalent and **conjugate**, biological studies
 7440-64-4D, Ytterbium, trivalent and **conjugate**, biological
 studies 7440-69-9D, Bismuth, divalent and **conjugate**,
 biological studies 9001-99-4D, Ribonuclease, **conjugate**
 9002-04-4D, Blood-coagulation factor IIa, **conjugate**
 9002-05-5D, Blood coagulation factor Xa, **conjugate** 9035-58-9D,
 Blood-coagulation factor III, polymeric or derivs and **conjugate**
 10043-66-0D, Iodine-131, **conjugate**, biological studies
 10098-91-6D, Yttrium-90, **conjugate**, biological studies
 13981-51-6D, Mercury-197, **conjugate**, biological studies
 13982-78-0D, Mercury-203, **conjugate**, biological studies
 14119-09-6D, Gallium-67, **conjugate**, biological studies
 14133-76-7D, Technetium-99, **conjugate**, biological studies
 14158-31-7D, Iodine-125, **conjugate**, biological studies
 14378-26-8D, Rhenium-188, **conjugate**, biological studies
 14885-78-0D, Indium-113, **conjugate**, biological studies
 14998-63-1D, Rhenium-186, **conjugate**, biological studies
 15715-08-9D, Iodine-123, **conjugate**, biological studies

15750-15-9D, Indium-111, **conjugate**, biological studies 15757-14-9D, Gallium-68, **conjugate**, biological studies 15757-86-5D, Copper-67, **conjugate**, biological studies **20830-81-3D**, Daunorubicin, **conjugate** 22438-27-3D, Rubidium-103, **conjugate**, biological studies 22453-63-0D, Rubidium-97, **conjugate**, biological studies 23214-92-8D, Doxorubicin, **conjugate** **25316-40-9D**, Adriamycin, **conjugate** 37270-94-3D, Platelet factor 4, **conjugate** 37316-87-3D, Blood coagulation Factor IXa, **conjugate** 57576-52-0D, Thromboxane A2, **conjugate** 60832-04-4D, Thromboxane A2 synthase, **conjugate** 62031-54-3D, Fibroblastic growth factor, **conjugate** 65312-43-8D, Blood-coagulation factor VIIa, **conjugate** 86102-31-0D, TIMP, **conjugate** 127464-60-2D, Vascular endothelial growth factor, **conjugate** 138757-15-0D, α 2-Antiplasmin, **conjugate**

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT 4375-07-9, Epipodophyllotoxin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugate** with antibody; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT 67-99-2, Aspergillin 1406-72-0, Restrictocin 75037-46-6, Gelonin 86243-64-3, α -Sarcin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugate**; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT 178038-65-8 194408-53-2

RL: PRP (Properties)

(**nucleotide** sequence; anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

IT **20830-81-3D**, Daunorubicin, **conjugate** **25316-40-9D**

, Adriamycin, **conjugate**

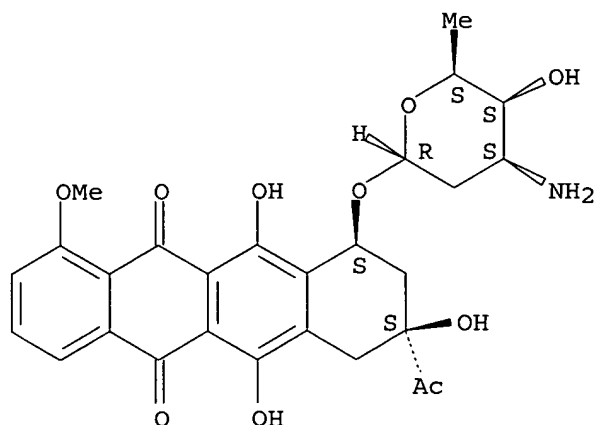
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-aminophospholipid antibody **conjugates** with diagnostic or therapeutic agent for targeting tumor blood vessels)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

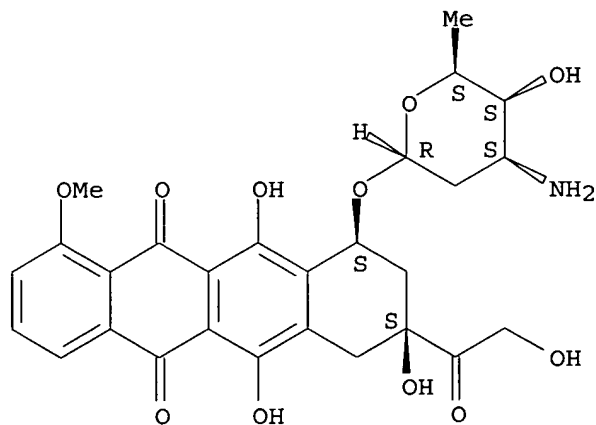
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 41 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:784397 HCAPLUS

DOCUMENT NUMBER: 133:344605

TITLE: **Peptides**

INVENTOR(S): Defeo-Jones, Deborah; Feng, Dong-Mei; Garsky, Victor M.; Jones, Raymond E.; Oliff, Allen I.

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 72 pp., Cont.-in-part of U.S. Ser. No. 404,833, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6143864	A	20001107	US 1995-468161	19950606 <--
US 5599686	A	19970204	US 1994-267092	19940628 <--
CA 2192957	AA	19960111	CA 1995-2192957	19950607 <--
CN 1156964	A	19970813	CN 1995-194855	19950607 <--
HU 76350	A2	19970828	HU 1996-3564	19950607 <--
PT 771209	T	20021231	PT 1995-926602	19950607 <--
ES 2182908	T3	20030316	ES 1995-926602	19950607 <--
US 5866679	A	19990202	US 1995-540412	19951006 <--
AU 9864763	A1	19980723	AU 1998-64763	19980506 <--
AU 714288	B2	19991223		

PRIORITY APPLN. INFO.:
 US 1994-267092 A2 19940628 <--
 US 1995-404833 B2 19950315 <--
 US 1995-468161 A2 19950606 <--
 AU 1995-30922 A3 19950607 <--
 AU 1996-72034 A3 19961002 <--

OTHER SOURCE(S): MARPAT 133:344605

ED Entered STN: 09 Nov 2000

AB **Oligopeptides** which comprise amino acid sequences that are recognized and proteolytically cleaved by free prostate specific antigen (PSA) are described. Also described are assays which comprise such **oligopeptides** useful for determining free PSA protease activity in vitro and in vivo. Therapeutic agents which comprise conjugates of such **oligopeptides** and known cytotoxic agents are also described.

IC ICM A61K038-14
 ICS C07K009-00

INCL 530322000

CC 1-6 (Pharmacology)
 Section cross-reference(s): 27, 34, 63

ST **peptide** cytotoxic agent **conjugate** prostate cancer inhibitor

IT Alkynes
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (alkadiynes, **peptide conjugates**; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

IT **Peptides, biological studies**
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (**conjugates** with cytotoxic agents; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

IT **Nucleoside analogs**
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (cytotoxic, **peptide conjugates**; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

- IT Prostate gland
Prostate gland
(neoplasm, inhibitors; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT Anthracyclines
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**peptide conjugates**; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT **Drug delivery systems**
Drug targeting
Protein degradation
(**peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT Prostate-specific antigen
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT Antitumor agents
(prostate gland; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT Alkaloids, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(vinca, **peptide conjugates**; **peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)
- IT 50-07-7D, Mitomycin C, **peptide conjugates** 50-18-0D,
Cyclophosphamide, **peptide conjugates** 50-44-2D,
6-Mercaptopurine, **peptide conjugates** 51-21-8D,
5-Fluorouracil, **peptide conjugates** 54-62-6D,
Aminopterin, **peptide conjugates** 57-22-7D,
Vincristine, **peptide conjugates** 59-05-2D,
Methotrexate, **peptide conjugates** 61-90-5D,
L-Leucine, **conjugates** with doxorubicin and **peptides**,
biological studies 63-91-2D, L-Phenylalanine, **conjugates** with
cytotoxic agents and **peptides**, biological studies 72-18-4D,
L-Valine, **conjugates** with doxorubicin and **peptides**,
biological studies 73-32-5D, L-Isoleucine, **conjugates** with
doxorubicin and **peptides**, biological studies 91-18-9D,
Pteridine, analogs, **peptide conjugates** 147-94-4D,
Cytosine arabinoside, **peptide conjugates** 148-82-3D,
Melphalan, **peptide conjugates** 327-57-1D,
L-Norleucine, **conjugates** with doxorubicin and **peptides**
518-28-5D, Podophyllotoxin, analogs, **peptide conjugates**
528-74-5D, Dichloromethotrexate, **peptide conjugates**
801-52-5D, Porfiromycin, **peptide conjugates**

865-21-4D, Vinblastine, **peptide conjugates**
 1404-00-8D, Mitomycin, analogs, **peptide conjugates**
 2410-93-7D, Methopterin, **peptide conjugates**
 2577-40-4D, **conjugates** with doxorubicin and **peptides**
 2998-57-4D, Estramustine, **peptide conjugates**
 6600-40-4D, L-Norvaline, **conjugates** with doxorubicin and
peptides 11056-06-7D, Bleomycin, analogs, **peptide**
conjugates 15228-71-4D, Leucosidine, **peptide**
conjugates 15663-27-1D, Cisplatin, **peptide**
conjugates 20830-81-3D, Daunorubicin, **peptide**
conjugates 23214-92-8D, Doxorubicin, **peptide**
conjugates 23360-92-1D, Leucosine, **peptide**
conjugates 27527-05-5D, **conjugates** with doxorubicin
 and **peptides** 33419-42-0D, Etoposide, **peptide**
conjugates 50935-04-1D, **peptide conjugates**
 53643-48-4D, Vindesine, **peptide conjugates**
 58438-03-2D, (2-Naphthyl)alanine, **conjugates** with doxorubicin
 and **peptides** 117091-64-2D, Etoposide phosphate,
peptide conjugates 174594-63-9D, **conjugates**
 with doxorubicin 174639-47-5D, **conjugates** with doxorubicin
 174639-59-9D, **conjugates** with doxorubicin 174639-73-7D,
conjugates with doxorubicin 174640-61-0D, **conjugates**
 with doxorubicin 174640-62-1D, **conjugates** with doxorubicin
 174640-63-2D, **conjugates** with doxorubicin 174640-73-4D,
conjugates with doxorubicin 174640-78-9 174640-79-0
 174640-80-3 174640-81-4 174640-82-5 174640-83-6 174640-84-7
 174640-85-8 174640-86-9 174640-87-0 174640-88-1 174640-89-2
 174640-90-5 174640-92-7 174640-93-8 189512-75-2 189512-77-4
 189513-12-0

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

IT 123105-77-1P 189508-81-4P 189513-24-4P 189513-25-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

IT 174640-91-6 189513-15-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**peptides** which are recognized and proteolytically cleaved by prostate-specific antigen and their **conjugation** with cytotoxic agents for prostate cancer treatment)

IT 174639-48-6 174639-52-2 174639-54-4 174639-56-6 174639-62-4
 174639-87-3 174640-11-0 174640-12-1 189508-80-3 189508-82-5
 189508-98-3 189508-99-4 189509-00-0 189509-02-2 189509-03-3
 189509-04-4 189509-05-5 189509-06-6 189509-07-7 189509-08-8
 189509-09-9 189509-11-3 189509-12-4 189509-14-6 189509-15-7
 189509-18-0 189509-19-1 189509-20-4 189509-21-5 189510-24-5
 189510-27-8 189510-29-0 189510-32-5 189510-88-1 189511-32-8
 189511-34-0 189511-46-4 189511-49-7 189511-56-6 189511-61-3
 189511-75-9 189511-79-3 189511-81-7 189511-86-2 189511-89-5
 189511-90-8 189511-92-0 189511-94-2 189511-97-5 189512-00-3
 189512-02-5 189512-06-9 189512-10-5 189512-11-6 189512-14-9

189512-17-2 189512-19-4 189512-20-7 189512-22-9 189512-23-0
189512-24-1 189512-73-0 304659-25-4 304659-73-2
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)

(**peptides** which are recognized and proteolytically cleaved by
prostate-specific antigen and their **conjugation** with
cytotoxic agents for prostate cancer treatment)

IT 23214-92-8, Doxorubicin

RL: RCT (Reactant); RACT (Reactant or reagent)

(**peptides** which are recognized and proteolytically cleaved by
prostate-specific antigen and their **conjugation** with
cytotoxic agents for prostate cancer treatment)

IT 305388-78-7 305808-67-7 305808-74-6

RL: PRP (Properties)

(unclaimed **protein** sequence; **peptides**)

IT 174639-47-5 174639-59-9 174639-66-8 174639-67-9 174639-69-1
174639-70-4 174639-71-5 174639-72-6 174639-73-7 174639-80-6
174639-81-7 174639-82-8 174639-83-9 174639-84-0 174639-85-1
174639-89-5 174639-97-5 174640-00-7 174640-02-9 174640-03-0
174640-04-1 174640-05-2 174640-06-3 174640-07-4 174640-27-8
174640-51-8 174640-54-1 174640-55-2 174640-56-3 174640-57-4
174640-58-5 174640-60-9 174640-61-0 174640-62-1 174640-63-2
174640-65-4 174640-66-5 174640-67-6 174640-69-8 174640-70-1
174640-71-2 174640-72-3 174640-74-5 174640-77-8 189508-84-7
189508-85-8 189508-88-1 189508-89-2 189508-90-5 189508-91-6
189508-92-7 189508-93-8 189508-94-9 189508-97-2 189509-31-7
189509-37-3 189509-39-5 305325-44-4 305325-49-9 305325-75-1
305325-78-4 305325-80-8 305325-82-0 305325-84-2 305325-86-4
305325-88-6 305325-90-0 305325-93-3 305325-95-5 305325-98-8
305326-07-2 305808-48-4 305808-56-4

RL: PRP (Properties)

(unclaimed sequence; **peptides**)

IT 20830-81-3D, Daunorubicin, **peptide conjugates**

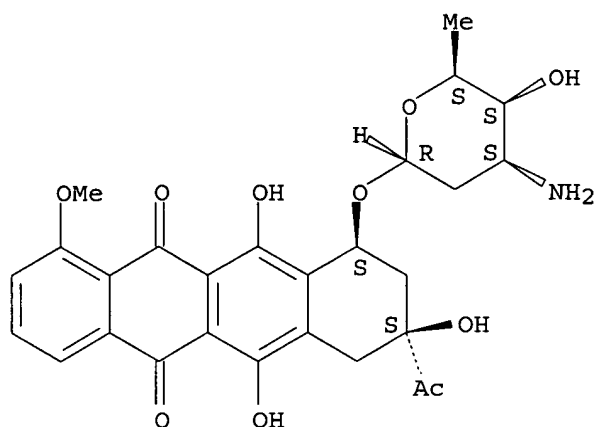
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(**peptides** which are recognized and proteolytically cleaved by
prostate-specific antigen and their **conjugation** with
cytotoxic agents for prostate cancer treatment)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 42 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:567455 HCAPLUS

DOCUMENT NUMBER: 133:140217

TITLE: Hormone-nuclease compounds and method for regulating hormone related diseases and for sterilization of animals

INVENTOR(S): Nett, Torrance M.; Glode, Leonard Michael; Karpeisky, Marat

PATENT ASSIGNEE(S): Colorado State University Research Foundation, USA

SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 314,653, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6103881	A	20000815	US 1998-15729	19980407 <--
US 5786457	A	19980728	US 1995-481128	19950607 <--
US 6326467	B1	20011204	US 2000-551933	20000419 <--
US 2002165126	A1	20021107	US 2002-54552	20020121 <--
US 6924268	B2	20050802		
US 2005277582	A1	20051215	US 2005-192754	20050729 <--
PRIORITY APPLN. INFO.:			US 1989-314653	B2 19890223 <--
			US 1995-481128	A2 19950607 <--
			US 1989-314643	B2 19890223 <--
			US 1992-837639	A2 19920214 <--
			US 1993-88434	A2 19930707 <--
			US 1993-94250	A2 19930720 <--
			US 1993-94265	A2 19930720 <--
			US 1993-94625	A2 19930720 <--
			US 1996-591917	A1 19960126 <--
			US 1998-15729	A2 19980407 <--
			US 1998-93087P	P 19980716 <--
			US 1999-354295	A1 19990715 <--
			US 2000-551933	A1 20000419 <--
			US 2002-54552	A1 20020121

OTHER SOURCE(S): MARPAT 133:140217

ED Entered STN: 16 Aug 2000

AB Certain toxic compds. (T) such as, for example, compds. based upon diphtheria toxin, ricin toxin, pseudomonas exotoxin, α -amanitin, pokeweed antiviral **protein** (PAP), ribosome inhibiting **proteins**, especially the ribosome inhibiting **proteins** of barley, wheat, corn, rye, gelonin and abrin, as well as certain cytotoxic chems. such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compds. which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compds. may be used to sterilize such animals and/or to treat certain sex hormone related diseases. Specifically claimed are hormone/nuclease conjugates comprising a hormone conjugated to a nuclease, said conjugate being capable of selectively binding to a gonadotroph and of substantially precluding said gonadotroph from secreting gonadotrophins and a method for sterilizing animals using the conjugates. Also specifically claimed is a **nucleic acid** sequence encoding a hormone/nuclease conjugate, said hormone selected from the group consisting of GnRH; FSH; LH; HCG; prolactin; motilin; TRH; MSH; TSH; somatostatin; GHRH; CRH; ACTH and said nuclease selected from the group consisting of nucleases selected from the group consisting of RNase A, RNase B, RNase C, RNase H, RNase S, RNase T, RNase U1, RNase U2, RNase 1; RNase A, oxidized; RNase A, with scrambled disulfide bonds; RNase **S-peptide**; RNase S-**protein**; RNase T1; RNase T2, DNase and angiogenin.

IC ICM A61K038-00
ICS C07K001-00; C07K005-00; C07K007-00

INCL 530402000

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 2

ST GnRH toxin **conjugate** gonadotroph destruction; hormone nuclease **conjugate** targeting disease treatment sterilization

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(PAP (pokeweed antiviral **protein**), **conjugates** with hormones; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(RIP (ribosome-inactivating **protein**), **conjugates** with hormones; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT Castration
(chemical; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT Ricans
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**conjugates** with gonadotropin-releasing hormone; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

- IT Abrins
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (**conjugates** with hormones; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Toxins
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (diphtheria, **conjugates** with gonadotropin-releasing hormone; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT **Nucleic acids**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (encoding hormone nuclease **conjugates**; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Pseudomonas
 (exotoxin of, **conjugates** with gonadotropin-releasing hormone; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Pituitary gland, anterior lobe
 (gonadotroph, killing of; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Barley
 Corn
 Rye
 Wheat
 (hemitoxin of, **conjugates** with GnRH; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Toxins
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (hemitoxins, of barley, corn, rye, and wheat, **conjugates** with gonadotropin-releasing hormone; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Angiogenic factors
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (hormone **conjugates**; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT Sterility
 (hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT **Drug delivery systems**
 (targeted; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)
- IT 9002-60-2, ACTH, biological studies 9002-61-3, Human chorionic

gonadotropin 9002-62-4, Prolactin, biological studies 9002-68-0, FSH 9002-71-5, Thyrotropin 9002-79-3, MSH 9015-71-8, Corticotropin-releasing factor 9034-39-3, Somatoliberin 24305-27-9, TRH 51110-01-1, Somatostatin 52906-92-0, Motilin

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**conjugates** with nucleases; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT 59131-98-5DP, toxin **conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT 148-82-3D, Melphalan, **conjugates** with gonadotropin-releasing hormone 9001-99-4D, Rnase, hormone **conjugates** 9002-67-9D, LH, nuclease **conjugates** 9003-98-9D, Dnase, hormone **conjugates** 9026-12-4D, Ribonuclease u1, hormone **conjugates** 9026-81-7D, Nuclease, hormone **conjugates** 9034-40-6D, Gonadotropin releasing hormone, nuclease and toxin **conjugates** 9050-76-4D, Ribonuclease h, hormone

conjugates 20830-81-3D, Daunomycin, **conjugates** with gonadotropin-releasing hormone 23109-05-9D, α Amanitin, **conjugates** with gonadotropin-releasing hormone 37205-57-5D, Ribonuclease u2, hormone **conjugates** 37278-25-4D, Ribonuclease t2, hormone **conjugates** 59131-98-5D, derivs. 75037-46-6D, Gelonin, hormone **conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT 111-30-8, Glutaraldehyde 151-51-9, Carbodiimide 1892-57-5 5957-03-9, Bis-diazobenzidine 6539-14-6, 2-Iminothiolane 58626-38-3 68181-17-9, Spdp 72252-96-1 79886-55-8 160854-54-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(linking agent; hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

IT 20830-81-3D, Daunomycin, **conjugates** with gonadotropin-releasing hormone

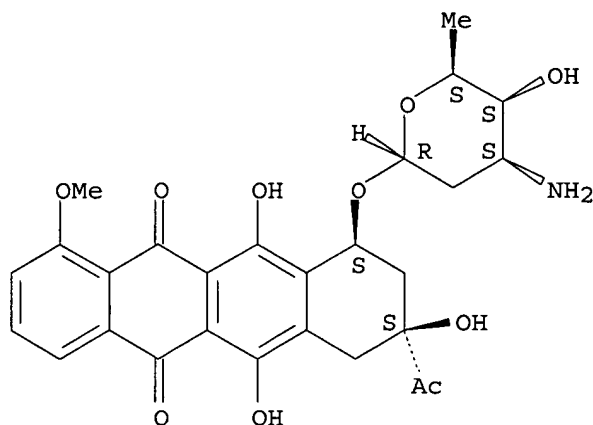
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(hormone-nuclease compds. and hormone-toxin **conjugates** and methods for regulating hormone related diseases and for sterilization of animals)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 43 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:307076 HCAPLUS

DOCUMENT NUMBER: 132:339324

TITLE: Compositions that specifically bind to colorectal cancer cells and methods of using the same

INVENTOR(S): Waldman, Scott A.

PATENT ASSIGNEE(S): Thomas Jefferson University, USA

SOURCE: U.S., 48 pp., Cont.-in-part of U.S. 5,518,888.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6060037	A	20000509	US 1996-635930	19960426 <--
US 5518888	A	19960521	US 1993-141892	19931026 <--
US 5601990	A	19970211	US 1994-305056	19940913 <--
WO 9511694	A1	19950504	WO 1994-US12232	19941026 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5731159	A	19980324	US 1997-789270	19970128 <--
US 5928873	A	19990727	US 1998-46178	19980323 <--
US 6268159	B1	20010731	US 1998-138237	19980821 <--
US 6455251	B1	20020924	US 1999-304193	19990503 <--
US 2003068641	A1	20030410	US 2002-253321	20020924 <--
US 6942985	B2	20050913		
US 2006014201	A1	20060119	US 2005-225691	20050913 <--
PRIORITY APPLN. INFO.:			US 1993-141892	A2 19931026 <--
			US 1994-305056	A2 19940913 <--
			WO 1994-US12232	W 19941026 <--
			US 1995-468449	A3 19950606 <--
			US 1997-789270	A1 19970128 <--
			US 1998-46178	A1 19980323 <--

US 1999-304193
US 2002-253321

A3 19990503 <--
A3 20020924

ED Entered STN: 12 May 2000

AB Conjugated compds. which comprise an ST receptor binding moiety and a radiostable active moiety are disclosed. Pharmaceutical compns. comprising a conjugated compound which comprises an ST receptor binding moiety and a radiostable active moiety or an ST receptor binding moiety and a radioactive active moiety are disclosed. Methods of treating an individual suspected of suffering from metastasized colorectal cancer are disclosed. Methods of radioimaging metastasized colorectal cancer cells are disclosed. In vitro methods, kits and reagents are disclosed for determining whether or not an individual has metastasized colorectal cancer cells, for determining whether tumor cells are colorectal in origin and for analyzing tissue samples from the colon tissue to evaluate the extent of metastasis of colorectal tumor cells.

IC ICM A61K049-00

ICS A61K051-00; C12Q001-68; C01N033-566

INCL 424001650

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 8, 9

IT Glycoproteins, specific or class

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(CVF (cobra venom factor), **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(ML-I (mistletoe lectin I), **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(PAP (pokeweed antiviral **protein**), **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Antitumor agents

Cytotoxic agents

Diagnosis

Drug targeting

Immunoassay

Protein sequences

Radiography

Test kits

cDNA sequences

(ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Primers (**nucleic acid**)

RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(diphtheria, **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(exotoxins, Pseudomonas, **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Drug delivery systems

(parenterals; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Abrins

Ricins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT Proteins, specific or class

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(saporins, **peptide conjugates**; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT 50-18-0, Cyclophosphamide 51-21-8D, 5-Fluorouracil, **peptide**

conjugates 59-05-2D, Methotrexate, **peptide**

conjugates 68-76-8D, Trenimon, **peptide**

conjugates 147-94-4D, Cytosinearabioside, **peptide**

conjugates 148-82-3D, Melphalan, **peptide**

conjugates 305-03-3, Chlorambucil 443-48-1D, Metronidazole,

peptide conjugates 1404-00-8D, Mitomycin,

peptide conjugates 9001-78-9D, Alkaline phosphatase,

peptide conjugates 10043-66-0D, i131, **peptide**

conjugates, biological studies 10098-91-6D, y90, **peptide**

conjugates, biological studies 11056-06-7D, Bleomycin,

peptide conjugates 12634-34-3D, Macromomycin,

peptide conjugates 13551-87-6D, Misonidazole,

peptide conjugates 13981-50-5D, Co57, **peptide**

conjugates, biological studies 13981-51-6D, Hg197,

peptide conjugates, biological studies 13982-64-4D,

Sr87, **peptide conjugates**, biological studies

14093-04-0D, Fe52, **peptide conjugates**, biological

studies 14119-09-6D, Ga67, **peptide conjugates**,

biological studies 14119-24-5D, Os191, **peptide**

conjugates, biological studies 14133-76-7D, Tc99,

peptide conjugates, biological studies 14158-31-7D,

i125, **peptide conjugates**, biological studies
 14265-75-9D, Lu177, **peptide conjugates**, biological
 studies 14374-81-3D, Ge71, **peptide conjugates**,
 biological studies 14378-26-8D, Re188, **peptide
 conjugates**, biological studies 14391-11-8D, Au199,
peptide conjugates, biological studies 14391-19-6D,
 Tb161, **peptide conjugates**, biological studies
 14391-96-9D, Sc47, **peptide conjugates**, biological
 studies 14596-37-3D, p32, **peptide conjugates**,
 biological studies 14683-06-8D, Sn121, **peptide
 conjugates**, biological studies 14683-16-0D, i132,
peptide conjugates, biological studies 14687-25-3D,
 Pb203, **peptide conjugates**, biological studies
 14687-61-7D, As77, **peptide conjugates**, biological
 studies 14885-78-0D, In113, **peptide conjugates**,
 biological studies 14903-02-7D, k43, **peptide
 conjugates**, biological studies 14913-49-6D, Bi212,
peptide conjugates, biological studies 14913-89-4D,
 Rh105, **peptide conjugates**, biological studies
 14914-68-2D, Sb119, **peptide conjugates**, biological
 studies 14914-76-2D, Cs131, **peptide conjugates**,
 biological studies 14967-68-1D, Pd103, **peptide
 conjugates**, biological studies 14981-64-7D, Pd109,
peptide conjugates, biological studies 14981-79-4D,
 Pr143, **peptide conjugates**, biological studies
 14998-63-1D, Re186, **peptide conjugates**, biological
 studies 15047-05-9D, Cs129, **peptide conjugates**,
 biological studies 15092-94-1D, Pb212, **peptide
 conjugates**, biological studies 15663-27-1D, Cis-Platin,
peptide conjugates 15678-91-8D, Kr81, **peptide
 conjugates**, biological studies 15715-08-9D, i123,
peptide conjugates, biological studies 15720-35-1D,
 Cs127, **peptide conjugates**, biological studies
 15735-70-3D, Pt193, **peptide conjugates**, biological
 studies 15749-66-3D, p33, **peptide conjugates**,
 biological studies 15750-15-9D, In111, **peptide
 conjugates**, biological studies 15755-39-2D, At211,
peptide conjugates, biological studies 15757-14-9D,
 Ga68, **peptide conjugates**, biological studies
 15757-86-5D, Cu67, **peptide conjugates**, biological
 studies 15760-04-0D, Ag111, **peptide conjugates**,
 biological studies 15765-39-6D, Br77, **peptide
 conjugates**, biological studies 15776-19-9D, Bi206,
peptide conjugates, biological studies 18268-34-3D,
 Rb81, **peptide conjugates**, biological studies
 20830-81-3D, Daunorubicin, **peptide conjugates**
 23214-92-8D, Doxorubicin, **peptide conjugates**
 33419-42-0D, Etoposide, **peptide conjugates**
 36877-68-6D, Nitroimidazole, **peptide conjugates**
 53643-48-4D, Vindesine, **peptide conjugates**
 65988-88-7D, Modeccin, **peptide conjugates**
 75037-46-6D, Gelonin, **peptide conjugates**
 79153-26-7D, radioisotope **conjugates** 86825-60-7D, radioisotope
conjugates 89091-07-6D, radioisotope **conjugates**
 91933-11-8D, Volkensin, **peptide conjugates**
 92465-93-5D, radioisotope **conjugates** 92465-94-6D, radioisotope
conjugates 95260-78-9D, radioisotope **conjugates**
 95260-79-0D, radioisotope **conjugates** 95260-80-3D, radioisotope
conjugates 95260-81-4D, radioisotope **conjugates**
 96107-39-0D, radioisotope **conjugates** 96107-40-3D, radioisotope

conjugates 96107-41-4D, radioisotope **conjugates** 96107-42-5D, radioisotope **conjugates** 96107-43-6D, radioisotope **conjugates** 96121-87-8D, radioisotope **conjugates** 99221-82-6D, radioisotope **conjugates** 99237-32-8D, radioisotope **conjugates** 105892-70-4D, radioisotope **conjugates** 105892-72-6D, radioisotope **conjugates** 105892-73-7D, radioisotope **conjugates** 140653-38-9D, Guanylin (rat reduced), radioisotope **conjugates** 145319-90-0D, Guanylin (human reduced), radioisotope **conjugates** 166313-08-2D, radioisotope **conjugates** 166313-09-3D, radioisotope **conjugates** 166313-10-6D, radioisotope **conjugates** 166313-11-7D, radioisotope **conjugates** 166313-12-8D, radioisotope **conjugates** 166313-13-9D, radioisotope **conjugates** 166313-14-0D, radioisotope **conjugates** 166313-15-1D, radioisotope **conjugates** 166313-16-2D, radioisotope **conjugates** 166313-17-3D, radioisotope **conjugates** 166313-18-4D, radioisotope **conjugates** 166313-19-5D, radioisotope **conjugates** 166313-20-8D, radioisotope **conjugates** 166313-21-9D, radioisotope **conjugates** 166313-22-0D, radioisotope **conjugates** 166313-23-1D, radioisotope **conjugates** 166313-24-2D, radioisotope **conjugates** 166313-25-3D, radioisotope **conjugates** 166313-26-4D, radioisotope **conjugates** 166313-27-5D, radioisotope **conjugates** 166313-30-0D, radioisotope **conjugates** 166313-32-2D, radioisotope **conjugates** 166313-33-3D, radioisotope **conjugates** 221102-51-8D, radioisotope **conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT 9001-99-4D, **peptide conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(bovine; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT 9001-86-9D, Phospholipase C, **peptide conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(of Clostridium perfringens; ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

IT 181991-32-2, GenBank I21135 181991-33-3, GenBank I21136

RL: PRP (Properties)

(unclaimed **nucleotide** sequence; compns. that specifically bind to colorectal cancer cells and methods of using the same)

IT 20830-81-3D, Daunorubicin, **peptide conjugates**

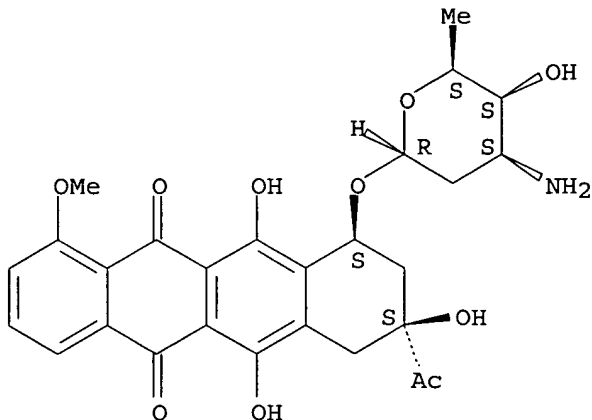
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(ST receptor-binding compns. that specifically bind to colorectal cancer cells for radioimaging and diagnosis of metastasis)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 44 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:283948 HCAPLUS
 DOCUMENT NUMBER: 132:313704
 TITLE: Therapeutic liposome composition and method of preparation
 INVENTOR(S): Allen, Theresa M.; Uster, Paul; Martin, Francis J.; Zalipsky, Samuel
 PATENT ASSIGNEE(S): Sequus Pharmaceuticals, Inc., USA
 SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 5,891,469.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6056973	A	20000502	US 1998-138480	19980821 <--
CA 2505445	AA	19980423	CA 1997-2505445	19971010 <--
US 5891468	A	19990406	US 1997-949046	19971010 <--
EP 1214935	A2	20020619	EP 2002-76092	19971010 <--
EP 1214935	A3	20030618		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, AL				
US 6316024	B1	20011113	US 2000-517224	20000302 <--
US 2001038851	A1	20011108	US 2001-876707	20010607 <--
AU 761204	B2	20030529	AU 2001-83637	20011025 <--
US 2002172711	A1	20021121	US 2001-16324	20011210 <--
US 6936272	B2	20050830		
US 2003215490	A1	20031120	US 2002-115566	20020402 <--
US 2004191250	A1	20040930	US 2004-821018	20040407 <--
US 2004191307	A1	20040930	US 2004-821021	20040407 <--
US 2005136064	A1	20050623	US 2005-49848	20050202 <--
US 2005169980	A1	20050804	US 2005-50012	20050202 <--

PRIORITY APPLN. INFO.:

US 1996-28269P	P 19961011 <--
US 1997-949046	A2 19971010 <--
AU 1997-49878	A3 19971010 <--
CA 1997-2267904	A3 19971010 <--
EP 1997-912775	A3 19971010 <--
US 1998-138480	A3 19980821 <--
US 2000-517224	A3 20000302 <--
US 2001-876707	A1 20010607

ED Entered STN: 03 May 2000

AB Reagents for use in preparing a therapeutic liposome composition sensitized to
a

target cell are described. The reagents include a liposomal composition composed of pre-formed liposomes having an entrapped therapeutic agent and a plurality of targeting conjugates composed of a lipid, a hydrophilic polymer and a targeting ligand. The therapeutic, target-cell sensitized liposome composition is formed by incubating the liposomal composition with a selected conjugate. Liposomes were prepared by mixing partially hydrogenated soybean phosphatidylcholin, cholesterol, and mPEG-DSPE at a molar ratio of 55:40:3 in chloroform and/or methanol in a round bottom flask. The solvents were removed and the dried lipid film produced was hydrated with a buffer to produce large multilamellar vesicles. An anti-E-selectin Fab fragment was conjugated to PEG-DSPE to form a targeting conjugate. An adequate amount of the Fab-PEG-DSPE conjugate was added to a suspension of the above liposomes and incubated overnight at room temperature for the insertion of the conjugate into preformed liposomes.

IC ICM A61K009-133

ICS A61K009-127

INCL 424450000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ST liposome antibody lipid polymer **conjugate** targeting; cytotoxic
agent ligand **conjugate** liposome targetingIT **Peptides, biological studies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Asp-Gly-Arg-containing; therapeutic liposome compns. sensitized to target
cells containing cytotoxic agents and lipid/polymer/ligand
conjugates)

IT **Protein receptors**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(E-selectin; therapeutic liposome compns. sensitized to target cells
containing cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT Cell adhesion molecules

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ICAM-1 (intercellular adhesion mol. 1); therapeutic liposome compns.
sensitized to target cells containing cytotoxic agents and
lipid/polymer/ligand **conjugates**)

IT **Protein receptors**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(L-selectin; therapeutic liposome compns. sensitized to target cells
containing cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT **Protein receptors**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(P-selectin; therapeutic liposome compns. sensitized to target cells
containing cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT Cell adhesion molecules

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PECAM-1; therapeutic liposome compns. sensitized to target cells

- containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Cell adhesion molecules
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (VCAM-1; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Antibiotics
 - (anthracycline; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Receptors
 - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 - (folate; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT **Drug delivery systems**
 - (liposomes; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Gene, animal
 - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 - (oncogene, HER2/neu; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Proliferation inhibition
 - (proliferation inhibitors; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT **Transferrins**
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (sialyl Lewisx; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT **Antibodies**
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (targeting ligands; therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT Cytotoxic agents
 - Drug targeting**
 - Plasmids
 - (therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT CD19 (antigen)
- CD20 (antigen)
- CD22 (antigen)
- CD4 (antigen)
- CD7 (antigen)
- CD8 (antigen)
- Chemokine receptors
- Epidermal growth factor receptors
- Growth factor receptors
- Vascular endothelial growth factor receptors
- neu (receptor)
- RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
- (therapeutic liposome compns. sensitized to target cells containing cytotoxic agents and lipid/polymer/ligand **conjugates**)
- IT **Antisense oligonucleotides**
 - Nucleic acids**
 - Peptides, biological studies**
 - Polyoxyalkylenes, biological studies
 - RGD **peptides**

Ribozymes

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic liposome compns. sensitized to target cells containing
cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT Fibroblast growth factor receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(type 1; therapeutic liposome compns. sensitized to target cells containing
cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT Integrins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
($\alpha\beta$; therapeutic liposome compns. sensitized to target cells
containing cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT 143180-75-0

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; therapeutic liposome compns. sensitized to target cells
containing cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT 54-47-7, Pyridoxal phosphate 59-30-3, Folic acid, biological studies
68-19-9, Vitamin B12

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(targeting ligand; therapeutic liposome compns. sensitized to target
cells containing cytotoxic agents and lipid/polymer/ligand
conjugates)

IT 57-22-7, Vincristine 865-21-4, Vinblastine 9003-09-2,
Polyvinylmethylether 9003-39-8, Polyvinylpyrrolidone 9004-62-0
, Hydroxyethylcellulose 9086-85-5, Polyhydroxypropylmethacrylate
15228-71-4, Vinrosidine 15663-27-1, Cisplatin 20830-81-3,
Daunorubicin 23214-92-8, Doxorubicin 23360-92-1, Vinleurosine;
25014-12-4, Polymethacrylamide 25322-68-3, Polyethyleneglycol
25805-17-8, Polyethyloxazoline 26022-14-0, Polyhydroxyethylacrylate
26375-28-0, 26793-34-0, Polydimethylacrylamide 37353-59-6,
Hydroxymethylcellulose 40704-75-4 41575-94-4, Carboplatin
53643-48-4, Vindesine. 56420-45-2, Epirubicin 58957-92-9, Idarubicin
61825-94-3, Oxaliplatin 62229-50-9, Epidermal growth factor
62816-98-2, Ormaplatin 71486-22-1, Vinorelbine 74790-08-2, Spiroplatin
91421-42-0, 9-Nitrocamptothecin 91421-43-1, 9-Aminocamptothecin
95734-82-0, Nedaplatin 97682-44-5, Irinotecan 103775-75-3
106096-93-9, Basic fibroblast growth factor 111490-36-9, Zeniplatin
111523-41-2, Enloplatin 123948-87-8, Topotecan 127464-60-2, Vascular
endothelial growth factor 129580-63-8 135558-11-1, Lobaplatin
149882-10-0 153008-57-2, SP-4-3(R)-1,1-cyclobutane-dicarboxylato(2-)-(2-
methyl-1,4-butanediam ine-N,N')platinum 158606-68-9, Polyaspartamide
158820-12-3 256411-32-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic liposome compns. sensitized to target cells containing
cytotoxic agents and lipid/polymer/ligand **conjugates**)

IT 9004-62-0, Hydroxyethylcellulose 20830-81-3,

Daunorubicin 37353-59-6, Hydroxymethylcellulose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic liposome compns. sensitized to target cells containing
cytotoxic agents and lipid/polymer/ligand **conjugates**)

RN 9004-62-0 HCAPLUS

CN Cellulose, 2-hydroxyethyl ether (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1

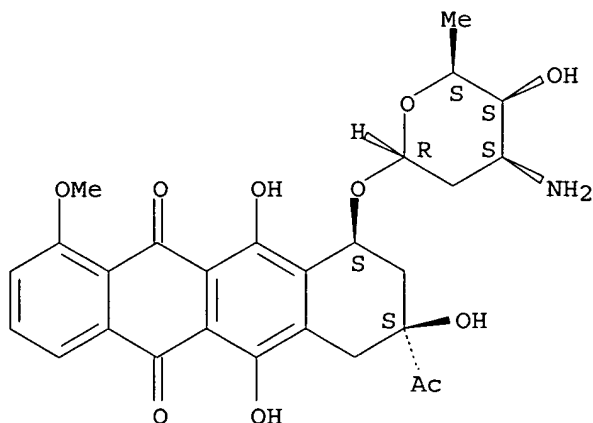
CMF C2 H6 O2

HO-CH₂-CH₂-OH

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 37353-59-6 HCAPLUS

CN Cellulose, hydroxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 463-57-0

CMF C H4 O2

HO-CH₂-OH

REFERENCE COUNT:

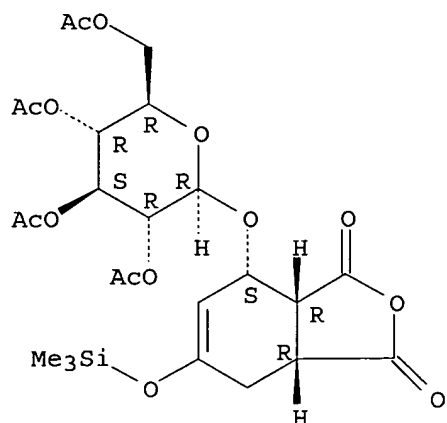
7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 45 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:836231 HCAPLUS
 DOCUMENT NUMBER: 134:101085
 TITLE: A **Diels-Alder** strategy to
 1,4-glycosidically **linked** monocarba-
disaccharides
 AUTHOR(S): Trotter, N. S.; Larsen, D. S.; Stoodley, R. J.;
 Brooker, S.
 CORPORATE SOURCE: Department of Chemistry, University of Otago, Dunedin,
 N. Z.
 SOURCE: Tetrahedron Letters (2000), 41(46),
 8957-8962
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 134:101085
 ED Entered STN: 30 Nov 2000
 AB A concise synthesis of the β -1,4- **linked** monocarba-
disaccharide, 4-O-(2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)-
 1,2,3,6-tetra-O-acetyl-5a-carba- α -L-idopyranose, using an asym.
Diels-Alder reaction of maleic anhydride and a
 glucosylated diene to construct the carbocyclic ring is described.
 CC 33-3 (Carbohydrates)
 IT **Diels-Alder** reaction
 (stereoselective; preparation of 1,4-glycosidically **linked**
 monocarba-**disaccharides** via an asym. **Diels-**
Alder reaction)
 IT 320393-00-8P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crystal structure of; preparation of 1,4-glycosidically **linked**
 monocarba-**disaccharides** via an asym. **Diels-**
Alder reaction)
 IT 108-31-6, Maleic anhydride, reactions 88204-86-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 1,4-glycosidically **linked** monocarba-
disaccharides via an asym. **Diels-Alder**
 reaction)
 IT 104629-46-1P 319925-49-0P 319925-50-3P 319925-51-4P
 319925-52-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of 1,4-glycosidically **linked** monocarba-
disaccharides via an asym. **Diels-Alder**
 reaction)
 IT 104629-46-1P 319925-49-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of 1,4-glycosidically **linked** monocarba-
disaccharides via an asym. **Diels-Alder**
 reaction)
 RN 104629-46-1 HCAPLUS
 CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydro-4-[(2,3,4,6-tetra-O-acetyl-
 β -D-glucopyranosyl)oxy]-6-[(trimethylsilyl)oxy]-, (3aR,4S,7aR)- (9CI)
 (CA INDEX NAME)

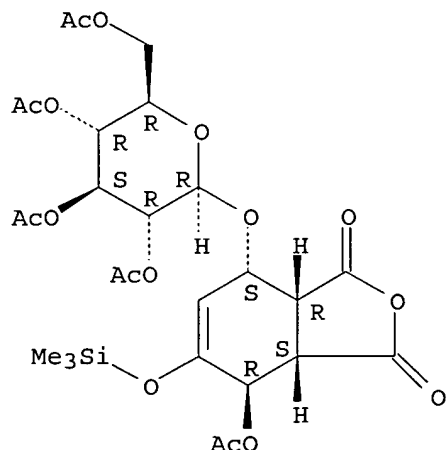
Absolute stereochemistry.



RN 319925-49-0 HCAPLUS

CN 1,3-Isobenzofurandione, 4-(acetyloxy)-3a,4,7,7a-tetrahydro-7-[(2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)oxy]-5-[(trimethylsilyl)oxy]-, (3aS,4R,7S,7aR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 46 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:97446 HCAPLUS

DOCUMENT NUMBER: 132:261963

TITLE: On the specificity of reactions catalysed by the antibody H11

AUTHOR(S): Khalaf, Abedawn I.; Linaza, Sabin; Pitt, Andrew R.; Stimson, William H.; Suckling, Colin J.

CORPORATE SOURCE: Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow, UK

SOURCE: Tetrahedron (2000), 56(3), 489-495

CODEN: TETRAB; ISSN: 0040-4020

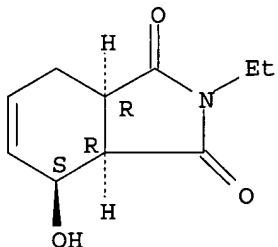
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

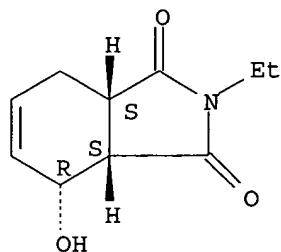
OTHER SOURCE(S): CASREACT 132:261963
 ED Entered STN: 11 Feb 2000
 AB The substrate specificity and the stereochem. course of the reactions catalyzed by the antibody H11 (which was raised to a **protein conjugated** derivative of the adduct of 1-acetoxy-buta-1,3-diene 1) have been investigated. The antibody shows high selectivity for acetoxybutadiene which it hydrolyzes to the corresponding dienol, the major diene component of the **cycloaddn.** reactions observed. However, it tolerates a range of N-alkylmaleimides. The stereochem. course of **cycloaddn.** is shown to produce a significant enantiomeric excess of the 3aR,4S,7aR-endo-diastereoisomer by anal. with Mosher's ester derivs. This study also revealed that H11 is capable of slowly catalyzing the hydrolysis of N-alkylmaleimide substrates. The implications for the mechanism of action of H11 are discussed.
 CC 7-2 (Enzymes)
 IT **263368-81-6P 263368-82-7P**
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
 (stereospecificity of reactions catalyzed by the antibody H11)
 IT 108-31-6, 2,5-Furandione, reactions 57006-69-6 **99187-12-9D**, anhydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (stereospecificity of reactions catalyzed by the antibody H11)
 IT **263368-77-0P 263368-78-1P 263368-79-2P**
263368-80-5P 263368-83-8P 263368-84-9P
263369-00-2P 263369-01-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (stereospecificity of reactions catalyzed by the antibody H11)
 IT 20445-31-2P **103204-93-9P 263368-74-7P**
263368-75-8P 263368-76-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (stereospecificity of reactions catalyzed by the antibody H11)
 IT **263368-81-6P 263368-82-7P**
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
 (stereospecificity of reactions catalyzed by the antibody H11)
 RN 263368-81-6 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-ethyl-3a,4,7,7a-tetrahydro-4-hydroxy-, (3aR,4S,7aR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

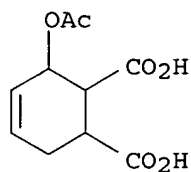


RN 263368-82-7 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-ethyl-3a,4,7,7a-tetrahydro-4-hydroxy-, (3aS,4R,7aS) - (9CI) (CA INDEX NAME)

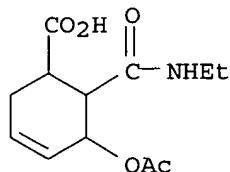
Absolute stereochemistry.



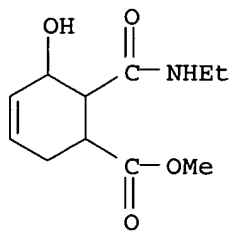
IT 99187-12-9D, anhydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (stereospecificity of reactions catalyzed by the antibody H11)
 RN 99187-12-9 HCAPLUS
 CN 4-Cyclohexene-1,2-dicarboxylic acid, 3-(acetyloxy)- (9CI) (CA INDEX NAME)



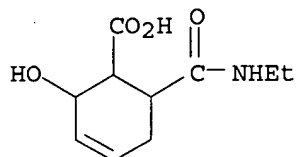
IT 263368-77-0P 263368-78-1P 263368-79-2P
 263368-80-5P 263368-83-8P 263368-84-9P
 263369-00-2P 263369-01-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (stereospecificity of reactions catalyzed by the antibody H11)
 RN 263368-77-0 HCAPLUS
 CN 3-Cyclohexene-1-carboxylic acid, 5-(acetyloxy)-6-[(ethylamino)carbonyl]-
 (9CI) (CA INDEX NAME)



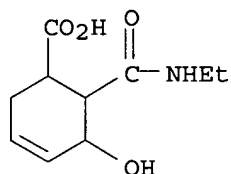
RN 263368-78-1 HCAPLUS
 CN 3-Cyclohexene-1-carboxylic acid, 6-[(ethylamino)carbonyl]-5-hydroxy-,
 methyl ester (9CI) (CA INDEX NAME)



RN 263368-79-2 HCAPLUS

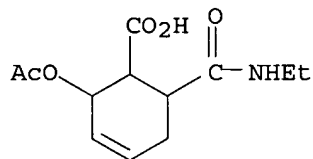
CN 3-Cyclohexene-1-carboxylic acid, 6-[(ethylamino)carbonyl]-2-hydroxy- (9CI)
(CA INDEX NAME)

RN 263368-80-5 HCAPLUS

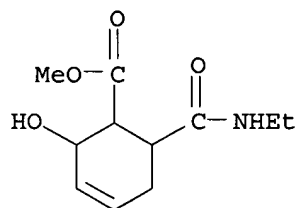
CN 3-Cyclohexene-1-carboxylic acid, 6-[(ethylamino)carbonyl]-5-hydroxy- (9CI)
(CA INDEX NAME)

RN 263368-83-8 HCAPLUS

CN 3-Cyclohexene-1-carboxylic acid, 2-(acetyloxy)-6-[(ethylamino)carbonyl]- (9CI) (CA INDEX NAME)



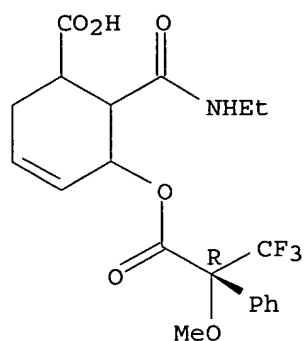
RN 263368-84-9 HCAPLUS

CN 3-Cyclohexene-1-carboxylic acid, 6-[(ethylamino)carbonyl]-2-hydroxy-,
methyl ester (9CI) (CA INDEX NAME)

RN 263369-00-2 HCAPLUS

CN Benzeneacetic acid, α -methoxy- α -(trifluoromethyl)-,
5-carboxy-6-[(ethylamino)carbonyl]-2-cyclohexen-1-yl ester, (α R)-
(9CI) (CA INDEX NAME)

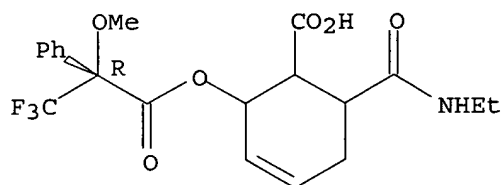
Absolute stereochemistry.



RN 263369-01-3 HCAPLUS

CN Benzeneacetic acid, α -methoxy- α -(trifluoromethyl)-, 6-carboxy-5-[(ethylamino)carbonyl]-2-cyclohexen-1-yl ester, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



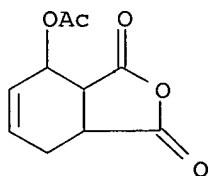
IT 103204-93-9P 263368-74-7P 263368-75-8P

263368-76-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(stereospecificity of reactions catalyzed by the antibody H11)

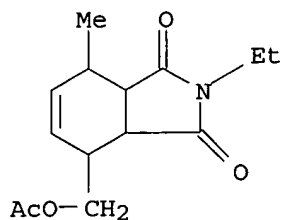
RN 103204-93-9 HCAPLUS

CN 1,3-Isobenzofurandione, 4-(acetyloxy)-3a,4,7,7a-tetrahydro- (9CI) (CA INDEX NAME)



RN 263368-74-7 HCAPLUS

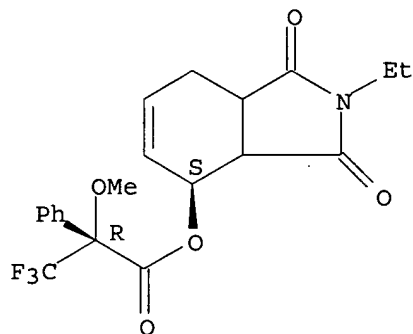
CN 1H-Isoindole-1,3(2H)-dione, 4-[(acetyloxy)methyl]-2-ethyl-3a,4,7,7a-tetrahydro-7-methyl- (9CI) (CA INDEX NAME)



RN 263368-75-8 HCAPLUS

CN Benzeneacetic acid, α -methoxy- α -(trifluoromethyl)-,
(4S)-2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl ester,
(α R)- (9CI) (CA INDEX NAME)

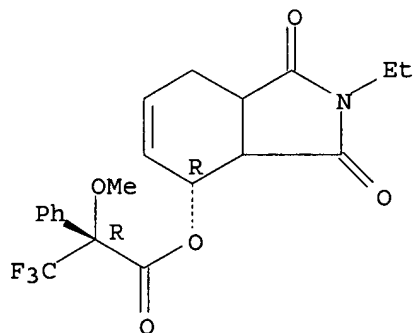
Absolute stereochemistry.



RN 263368-76-9 HCAPLUS

CN Benzeneacetic acid, α -methoxy- α -(trifluoromethyl)-,
(4R)-2-ethyl-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl ester,
(α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 47 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:763904 HCAPLUS

DOCUMENT NUMBER: 132:9008

TITLE: **Conjugates** of an autocrine motility factor

(AMF) ligand and a cytotoxic molecule for use in cancer therapy

INVENTOR(S): Nabi, Ivan R.
 PATENT ASSIGNEE(S): Universite De Montreal, Can.
 SOURCE: PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961060	A1	19991202	WO 1999-CA438	19990513 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2238257	AA	19991122	CA 1998-2238257	19980522 <--
CA 2333021	AA	19991202	CA 1999-2333021	19990513 <--
AU 9938066	A1	19991213	AU 1999-38066	19990513 <--
US 2003223978	A1	20031204	US 2003-366319	20030214 <--
PRIORITY APPLN. INFO.:			CA 1998-2238257	A 19980522 <--
			WO 1999-CA438	W 19990513 <--
			US 2001-700844	B2 20010208

ED Entered STN: 03 Dec 1999

AB Therapeutic conjugate to specifically kill motile cells is provided which comprises a first mol. which binds to autocrine motility factor receptor (AMF-R) attached to a second toxic mol. to kill the motile cells.

IC ICM A61K047-48

CC 1-6 (Pharmacology)
 Section cross-reference(s): 63

ST antitumor autocrine motility factor cytotoxic **conjugate**; AMF receptor ligand cytotoxic **conjugate** antitumor

IT Cytotoxic agents
 (AMF-R ligand **conjugates**; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)

IT Toxins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (ML-I (mistletoe lectin I), **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)

IT **Proteins, specific or class**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (PAP (pokeweed antiviral **protein**), **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)

IT Cell migration
Drug targeting
 Endoplasmic reticulum
 (autocrine motility factor ligand-cytotoxic mol. **conjugates**)

- for cancer therapy)
- IT Cytokine receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(autocrine motility factor receptors; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Cytokines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(autocrine motility factor, **conjugates** with cytotoxic agents; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bryodin, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Phosphoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(caveolins; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Drugs
(**conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Abrins
Ricins
Trichosanthin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Pseudomonas
(exotoxin, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxins, Pseudomonas, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Biological transport
(internalization; autocrine motility factor ligand-cytotoxic mol.

- conjugates** for cancer therapy)
- IT Antitumor agents
(leukemia; autocrine motility factor ligand-cytotoxic mol.
conjugates for cancer therapy)
- IT Antitumor agents
(melanoma; autocrine motility factor ligand-cytotoxic mol.
conjugates for cancer therapy)
- IT Antitumor agents
(metastasis; autocrine motility factor ligand-cytotoxic mol.
conjugates for cancer therapy)
- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(momordins, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Organelle
(pinosome; autocrine motility factor ligand-cytotoxic mol.
conjugates for cancer therapy)
- IT Enzymes, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prodrug-activating, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT **Drug delivery systems**
(prodrugs, enzymes activating, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Proliferation inhibition
(proliferation inhibitors, AMF-R ligand **conjugates**; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(saporins, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Barley
(toxin, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Bacteria (Eubacteria)
Fungi
Plant (Embryophyta)
(toxins. **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT Alkaloids, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vinca, **conjugates** with AMF-R ligands; autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)
- IT 50-07-7D, Mitomycin C, **conjugates** with AMF-R ligands 59-05-2D, Methotrexate, **conjugates** with AMF-R ligands 1406-72-0D, Restrictocin, **conjugates** with AMF-R ligands 1407-48-3D, α -Sarcin, **conjugates** with AMF-R ligands 9001-41-6D, Phosphohexose isomerase, doxorubicin **conjugates** 9001-78-9D, Alkaline phosphatase, **conjugates** with AMF-R ligands

9014-02-2D, Neocarzinostatin, **conjugates** with AMF-R ligands

9031-98-5D, Carboxypeptidase, **conjugates** with AMF-R ligands

20830-81-3D, Daunorubicin, **conjugates** with AMF-R ligands

23214-92-8D, Doxorubicin, **conjugates** with AMF-R ligands

65988-88-7D, Modeccin, **conjugates** with AMF-R ligands

75037-46-6D, Gelonin, **conjugates** with AMF-R ligands

113440-58-7D, Calicheamicin, **conjugates** with AMF-R ligands

175795-76-3D, **conjugates** with AMF-R ligands

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)

IT 20830-81-3D, Daunorubicin, **conjugates** with AMF-R ligands

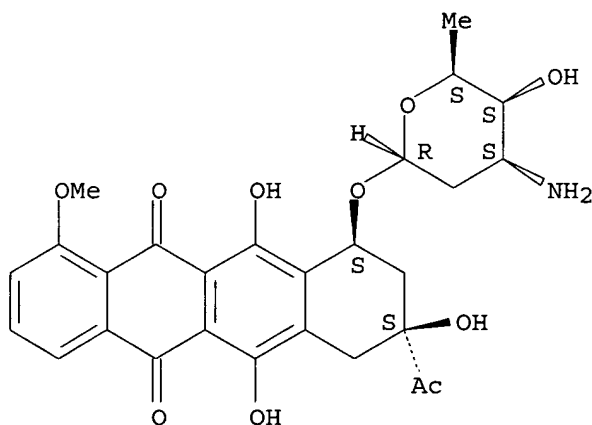
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(autocrine motility factor ligand-cytotoxic mol. **conjugates** for cancer therapy)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 48 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:753037 HCAPLUS

DOCUMENT NUMBER: 132:6348

TITLE: Controlled drug delivery system using the **conjugation** of drug to biodegradable polyester

INVENTOR(S): Oh, Jong Eun; Lee, Keon Hyoung; Park, Tae Gwan; Nam, Yoon Sung

PATENT ASSIGNEE(S): Mogam Biotechnology Research Institute, S. Korea; Korea Advanced Institute of Science and Technology

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9959548	A1	19991125	WO 1999-KR243	19990514 <--
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1082105	A1	20010314	EP 1999-919701	19990514 <--
R: CH, DE, ES, FR, GB, IT, LI, SE				
JP 2002526383	T2	20020820	JP 2000-549213	19990514 <--
US 6589548	B1	20030708	US 2000-700380	20001114 <--
US 2004013728	A1	20040122	US 2003-423536	20030425 <--
PRIORITY APPLN. INFO.:			KR 1998-17740	A 19980516 <--
			WO 1999-KR243	W 19990514 <--
			US 2000-700380	A1 20001114 <--

ED Entered STN: 26 Nov 1999

AB The present invention relates to the mol. sustained controlled release system constructed by the conjugation of mols. to be released with biodegradable polyester polymer via covalent bond and method for preparation thereof. The system may be formulated into **microspheres**, nanoparticles, or films. The mol. release rate from the above system can be regulated to be proportional to the chemical degradation rate of the biodegradable polyester polymers, resulting in near zero order kinetics profile of release without showing a burst effect. Moreover, the high loading efficiency of hydrophilic drugs can be achieved. Fmoc-Trp(Boc) was coupled to poly(glycolic acid-lactic acid), **microspheres** containing this conjugate prepared, and drug release was studied.

IC ICM A61K009-16

ICS A61K009-22; A61K009-50; A61K009-51; A61K009-52

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 5, 19

ST polyester **conjugate** controlled drug release

IT Antiarrhythmics

Antibiotics

Anticoagulants

Antitumor agents

Herbicides

Pesticides

(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)

IT Fertilizers

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)

IT Polyesters, biological studies

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)

IT Enkephalins

Hypothalamic hormones

Interferons

Opioids

Peptides, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)

IT **Drug delivery systems**

(controlled-release; controlled drug delivery system using

- conjugates of drugs to biodegradable polyesters)**
- IT **Drug delivery systems**
(**microspheres**, controlled-release; controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT **Drug delivery systems**
(nanoparticles, controlled-release; controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT **Drug delivery systems**
(prodrugs; controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 25952-53-8, EDC
RL: CAT (Catalyst use); USES (Uses)
(EDC; controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 538-75-0, Dcc 693-13-0 68641-49-6 74124-79-1, Disuccinimidyl carbonate 94790-37-1, Hbtu 105832-38-0, TSTU 125700-67-6, Tbtu 128625-52-5, Pybop 132705-51-2, Pybrop **214044-49-2**
RL: CAT (Catalyst use); USES (Uses)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 771-61-9 **21715-90-2** 71849-58-6, Hydroxybenzotriazole
RL: MOA (Modifier or additive use); USES (Uses)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 109-02-4, N-Methylmorpholine 110-86-1, Pyridine, uses 121-44-8, uses 6674-22-2 7087-68-5, Diisopropylethylamine 57951-36-7
RL: NUU (Other use, unclassified); USES (Uses)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 1397-89-3DP, Amphotericin b, **conjugates** with poly(glycolic acid-lactic acid) 9001-63-2DP, Lysozyme, **conjugates** with poly(glycolic acid-lactic acid) 23214-92-8DP, Doxorubicin, **conjugates** with poly(glycolic acid-lactic acid) 34346-01-5P, Glycolic acid-lactic acid copolymer 143824-78-6DP, **conjugates** with poly(glycolic acid-lactic acid) 251083-55-3DP, PCT-KR 96-0034, **conjugates** with poly(glycolic acid-lactic acid)
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 7693-46-1, p-Nitrophenylchloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 7693-46-1DP, p-Nitrophenyl chloroformate, **conjugates** with poly(glycolic acid-lactic acid)
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(controlled drug delivery system using **conjugates** of drugs to biodegradable polyesters)
- IT 50-44-2, 6-Mercaptopurine 50-91-9, Floxuridine 59-05-2, Methotrexate 69-53-4, Ampicillin 114-07-8, Erythromycin 118-00-3D, Guanosine, acryl derivs., biological studies 961-07-9D, Deoxyguanosine, derivs. **1404-90-6**, Vancomycin 3416-05-5 3922-90-5, Oleandomycin 4097-22-7, Dideoxyadenosine 5536-17-4, Ara-A 9000-96-8, Arginase 9001-75-6, Pepsin 9001-99-4, Ribonuclease 9002-07-7, Trypsin 9002-60-2, Acth, biological studies 9002-62-4, Prolactin, biological studies 9002-64-6, Parathyroid hormone 9002-71-5, Thyroid stimulating hormone 9002-72-6, Somatotropin 9004-07-3, Chymotrypsin 9004-10-8, Insulin, biological studies **9005-49-6**, Heparin, biological

studies 9007-12-9, Calcitonin 9007-92-5, Glucagon, biological studies
 9015-68-3, Asparaginase 9026-93-1, Adenosine deaminase 9027-98-9
 9038-70-4, Somatomedin 9054-89-1, Superoxide dismutase 11000-17-2,
 Vasopressin 11096-26-7, Erythropoietin 15663-27-1, Cisplatin
20830-81-3, Daunorubicin 24980-41-4, Polycaprolactone
 25248-42-4, Polycaprolactone 26009-03-0, Poly(glycolic acid)
 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6,
 Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 26354-94-9,
 Polyvalerolactone 26499-05-8, Polyvalerolactone SRU 28728-97-4,
 Poly(hydroxybutyric acid) SRU 29223-92-5, 1,4-Dioxan-2-one, homopolymer
 30516-87-1, Azidothymidine 31621-87-1, Poly(dioxanone) 51110-01-1,
 Somatostatin 52352-27-9, Poly(hydroxybutyric acid) 54512-07-1,
 Glycolic acid-L-lactic acid copolymer 58957-92-9, I-Darubicin
 60118-07-2, Endorphin 69655-05-6, Dideoxyinosine 102190-94-3,
 Poly(hydroxyvaleric acid) 146447-66-7, Propanoic acid, 2-hydroxy-,
 (2R)-, polymer with hydroxyacetic acid
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (controlled drug delivery system using **conjugates** of drugs to
 biodegradable polyesters)

IT **214044-49-2**

RL: CAT (Catalyst use); USES (Uses)
 (controlled drug delivery system using **conjugates** of drugs to
 biodegradable polyesters)

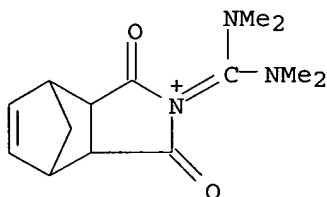
RN 214044-49-2 HCAPLUS

CN 4,7-Methano-1H-isoindolium, 2-[bis(dimethylamino)methylene]-2,3,3a,4,7,7a-
 hexahydro-1,3-dioxo-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 214044-48-1

CMF C14 H20 N3 O2

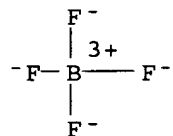


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



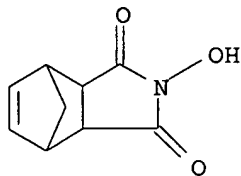
IT **21715-90-2**

RL: MOA (Modifier or additive use); USES (Uses)
 (controlled drug delivery system using **conjugates** of drugs to

biodegradable polyesters)

RN 21715-90-2 HCAPLUS

CN 4,7-Methano-1H-isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-hydroxy-(9CI) (CA INDEX NAME)



IT 1404-90-6, Vancomycin 9005-49-6, Heparin, biological

studies 20830-81-3, Daunorubicin

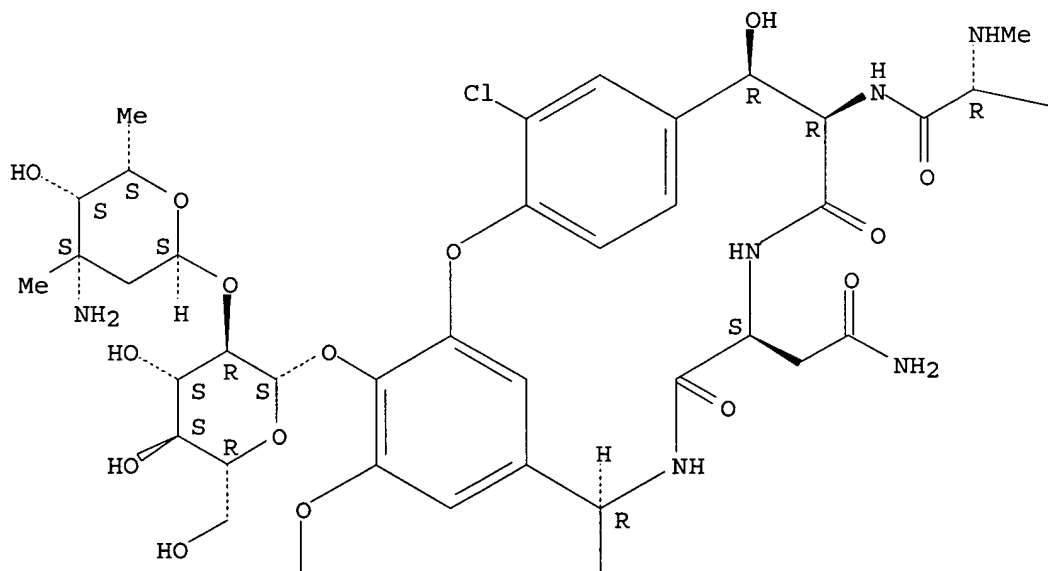
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(controlled drug delivery system using **conjugates** of drugs to
biodegradable polyesters)

RN 1404-90-6 HCAPLUS

CN Vancomycin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

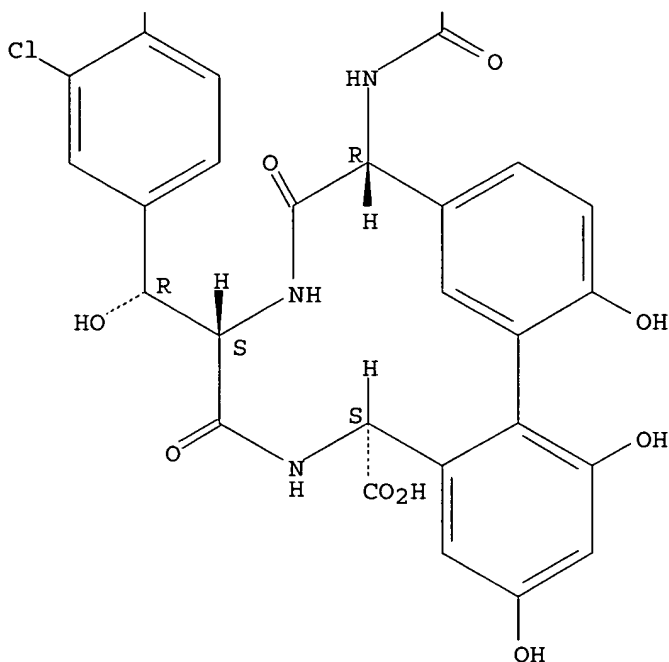
PAGE 1-A



PAGE 1-B

— Bu-i

PAGE 2-A

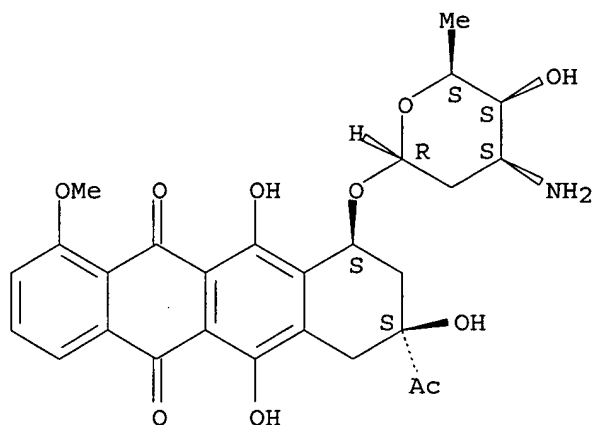


RN 9005-49-6 HCAPLUS
 CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 49 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:298729 HCAPLUS

DOCUMENT NUMBER: 131:32103

TITLE: Stereospecific exo-Selective Diels-Alder Reactions with Carbohydrate-Functionalized α -exo-Methylene-2-oxacyclopentylidene Chromium Complexes

AUTHOR(S): Weyershausen, Bernd; Nieger, Martin; Doetz, Karl Heinz
CORPORATE SOURCE: Kekule-Institut fuer Organische Chemie und Biochemie and Institut fuer Anorganische Chemie, Rheinische Friedrich-Wilhelms-Universitaet Gerhard-Domagk-Strasse 1, Bonn, 53121, Germany

SOURCE: Journal of Organic Chemistry (1999), 64(11), 4206-4210

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 131:32103

ED Entered STN: 17 May 1999

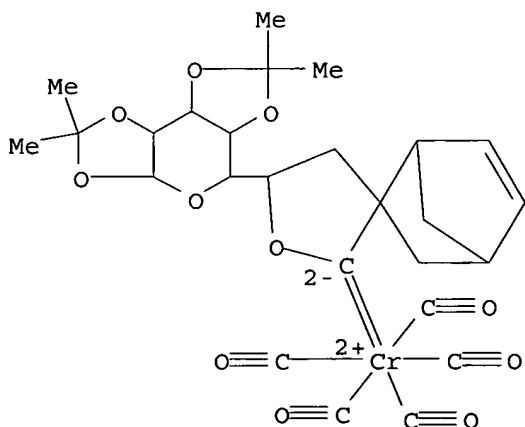
AB We report on the synthesis of carbohydrate-functionalized α -exo-methylene-2-oxacyclopentylidene chromium complexes and their application to stereospecific exo-selective Diels-Alder reactions. This approach is expected to allow the stereoselective formation of spiro-centers in bi- and tricyclic compds. bearing a metal ylidene moiety that may be exploited in either subsequent addition reactions to the electrophilic ylidene carbon atom or in template reactions occurring at the chromium carbonyl fragment.

CC 33-3 (Carbohydrates)
Section cross-reference(s): 29

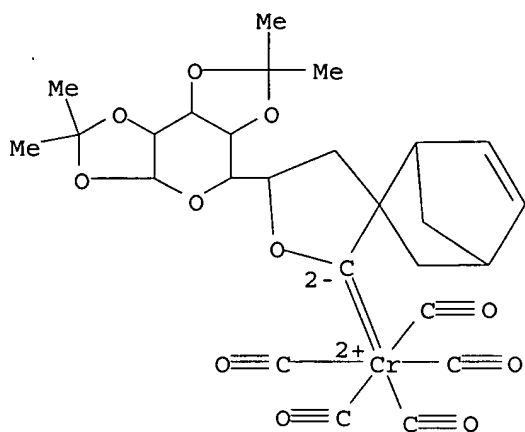
IT **Diels-Alder** reaction
(stereoselective; stereospecific exo-selective **Diels Alder** reactions with **carbohydrate**-functionalized glycoside α -methyleneoxacyclopentylidene chromium **complexes**)

IT Glycosides
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereospecific exo-selective **Diels Alder** reactions with **carbohydrate**-functionalized glycoside)

- α -methyleneoxacyclopentylidene chromium complexes)
- IT 542-92-7, Cyclopentadiene, reactions 4933-77-1 15038-41-2,
Pentacarbonyl(tetrahydrofuran)chromium 18295-60-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereospecific exo-selective **Diels Alder** reactions
with **carbohydrate**-functionalized glycoside
 α -methyleneoxacyclopentylidene chromium complexes)
- IT 226943-42-6P 226943-49-3P 227016-41-3P 227016-42-4P 227016-90-2P
227016-99-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(stereospecific exo-selective **Diels Alder** reactions
with **carbohydrate**-functionalized glycoside
 α -methyleneoxacyclopentylidene chromium complexes)
- IT 226943-56-2P 227017-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereospecific exo-selective **Diels Alder** reactions
with **carbohydrate**-functionalized glycoside
 α -methyleneoxacyclopentylidene chromium complexes)
- IT 226943-56-2P 227017-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereospecific exo-selective **Diels Alder** reactions
with **carbohydrate**-functionalized glycoside
 α -methyleneoxacyclopentylidene chromium complexes)
- RN 226943-56-2 HCAPLUS
- CN Chromium, pentacarbonyl[(1R,2R,4R,5'R)-5'-[(5R)-1,2:3,4-bis-O-(1-methylethylidene)- β -L-arabinopyranos-5-C-yl]-4',5'-dihydrospiro[bicyclo[2.2.1]hept-5-ene-2,3'(2'H)-furan]-2'-ylidene]-, (OC-6-21)- (9CI) (CA INDEX NAME)



- RN 227017-80-3 HCAPLUS
- CN Chromium, [(1S,2S,4S,5'S)-5'-[(5R)-1,2:3,4-bis-O-(1-methylethylidene)- β -L-arabinopyranos-5-C-yl]-4',5'-dihydrospiro[bicyclo[2.2.1]hept-5-ene-2,3'(2'H)-furan]-2'-ylidene]pentacarbonyl-, (OC-6-21)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 50 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:35817 HCAPLUS

DOCUMENT NUMBER: 130:196686

TITLE: Saccharide Libraries as Potential Templates for Regio- and Chiroselective Introduction of Two Functional Groups into [60]Fullerene

AUTHOR(S): Ishi-i, Tsutomu; Nakashima, Kazuaki; Shinkai, Seiji; Ikeda, Atsushi

CORPORATE SOURCE: Chemotransfiguration Project, Japan Science and Technology Corporation (JST), Kurume Fukuoka, 839-0861, Japan

SOURCE: Journal of Organic Chemistry (1999), 64(3), 984-990

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:196686

ED Entered STN: 20 Jan 1999

AB This paper reports regio- and chiroselective introduction of two boronic acid groups into [60]fullerene controlled by a saccharide used as a template mol. The double [4+2] **cycloaddns.** between [60]fullerene and 1:2 **saccharide-boronic acid complexes** afforded [60]fullerene-bisadducts. Their structures were identified from ¹H and ¹³C NMR, UV-visible, and CD spectroscopy, mass spectrometry, and chiral HPLC anal. When 3-O-methyl-D-glucose was used as the template mol., high regioselectivity was achieved which gave trans-4 isomer as a main isomer in 72.5% yield. The chiro- as well as regioselective preparation of an e isomer was attained in 81.4% ee from the 55.7% yield racemic mixture by the reaction using the D-mannitol-3,4-carbonate template. When the enantiomers, D-threitol and L-threitol were used as the templates, cis-3 isomers with opposite chirality were yielded in 44.2 and 45.2% ee, resp. However, 1-O-methyl-α-D-mannopyranoside template featured nonselective **cycloaddn.**

CC 29-4 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 25, 33

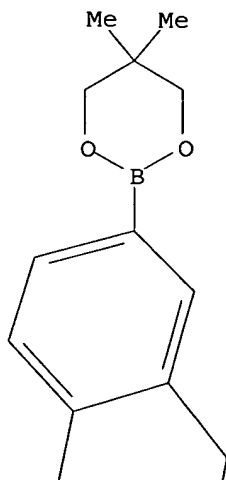
IT 220708-64-5P 220708-66-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and CD spectrum)

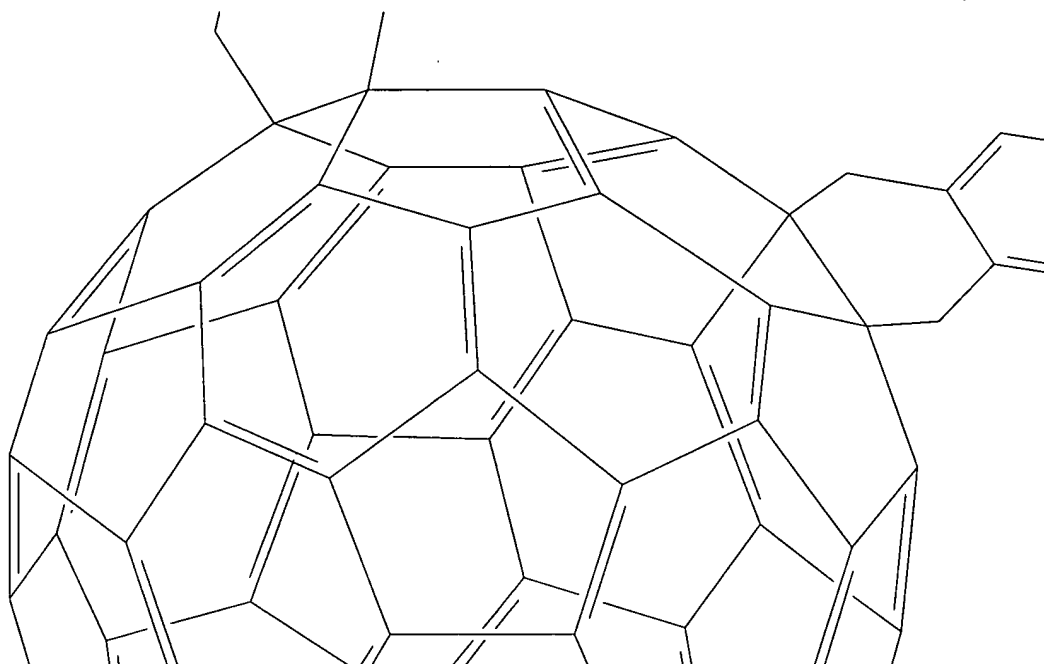
IT 208390-47-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of boronate to phenol derivative fullerene
compound)
IT 186907-06-2P 186907-07-3P 200393-49-3P
208390-48-1P 220632-78-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 220708-64-5P 220708-66-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and CD spectrum)
RN 220708-64-5 HCAPLUS
CN 1,3,2-Dioxaborinane, (1',1'',4',4''-tetrahydrodinaphtho[2',3':1,9;
2'',3'':13,14] [5,6]fullerene-C60-1h-7',7''-diyl)bis[5,5-dimethyl-,
stereoisomer (9CI) (CA INDEX NAME)

Rotation (+).

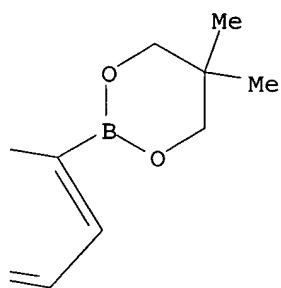
PAGE 1-A



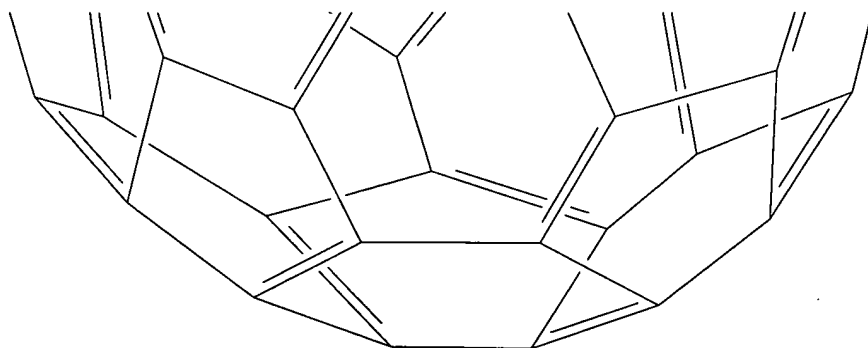
PAGE 2-A



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PAGE 3-A

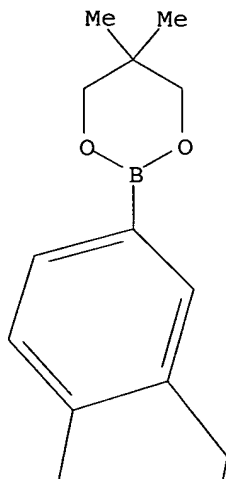


RN 220708-66-7 HCAPLUS

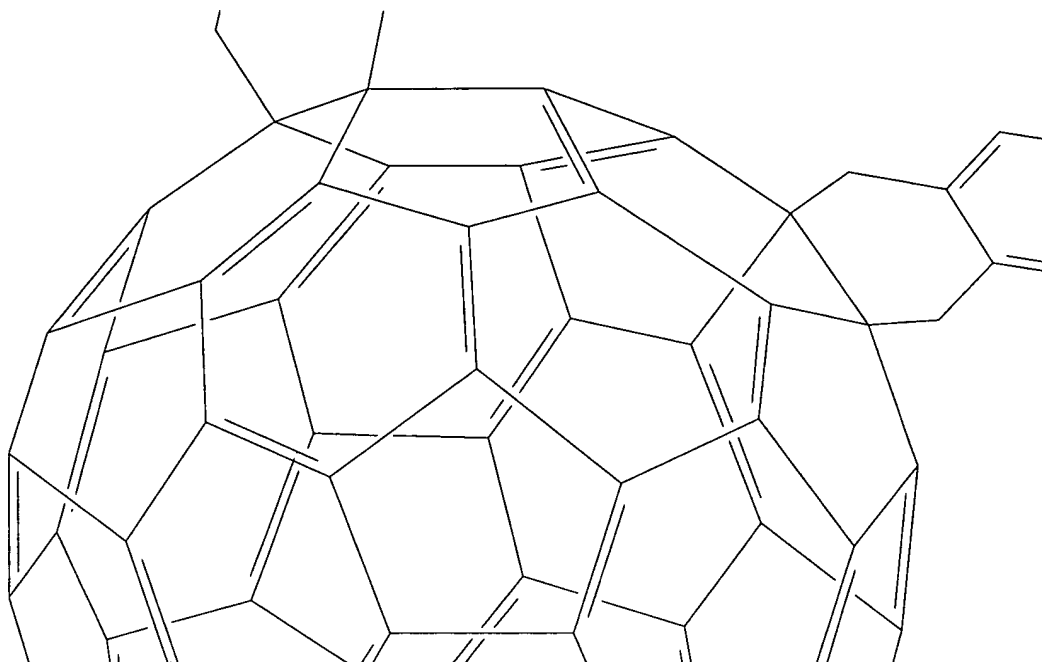
CN 1,3,2-Dioxaborinane, (1',1'',4',4''-tetrahydrodinaphtho[2',3':1,9;
2'',3'':13,14][5,6]fullerene-C60-Ih-7',7''-diyl)bis[5,5-dimethyl-,
stereoisomer (9CI) (CA INDEX NAME)

Rotation (-).

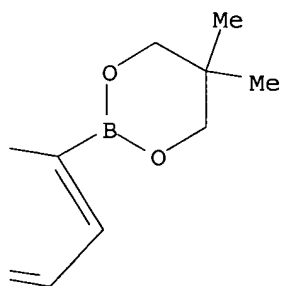
PAGE 1-A



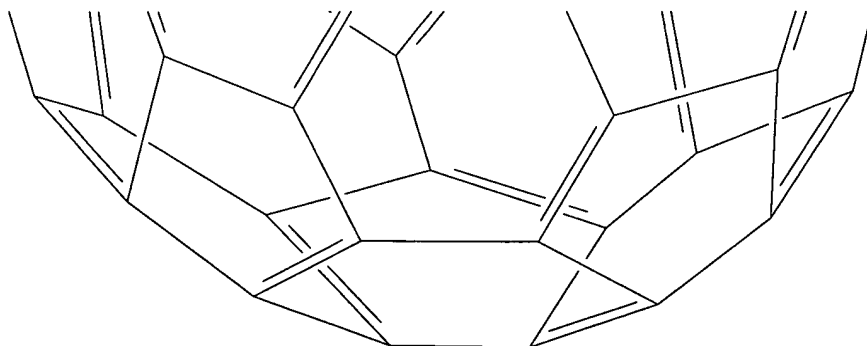
PAGE 2-A



PAGE 2-B



PAGE 3-A



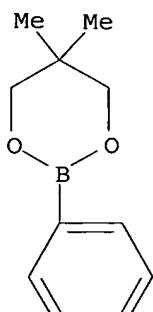
IT 208390-47-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of boronate to phenol derivative fullerene
compound)

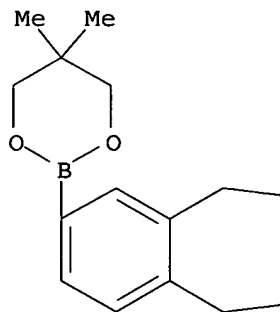
RN 208390-47-0 HCAPLUS

CN 1,3,2-Dioxaborinane, (1',1'',4',4''-tetrahydrodinaphtho[2',3':1,9;
2'',3'':32,33] [5,6]fullerene-C60-Ih-6'',7''-diyl)bis[5,5'-dimethyl- (9CI)
(CA INDEX NAME)

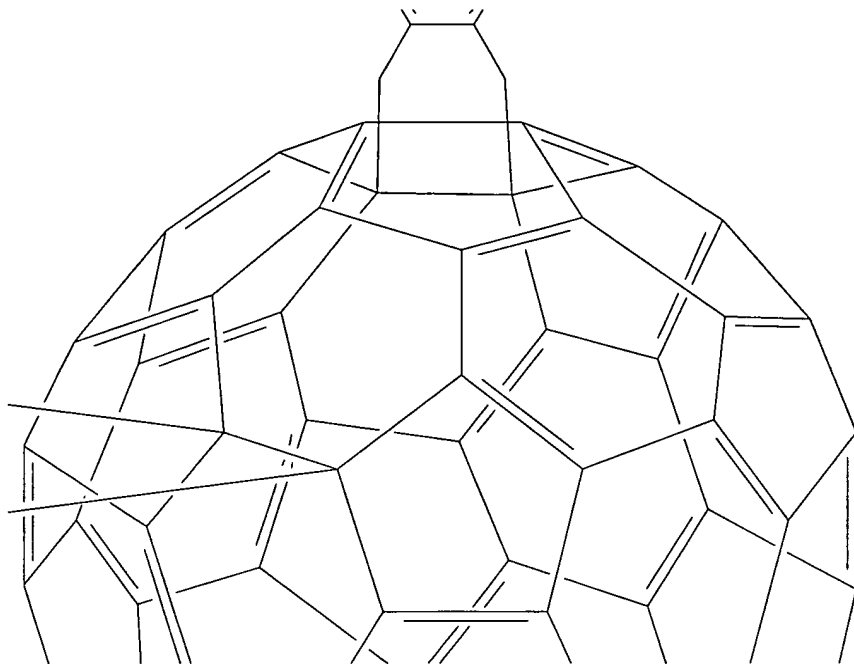
PAGE 1-B



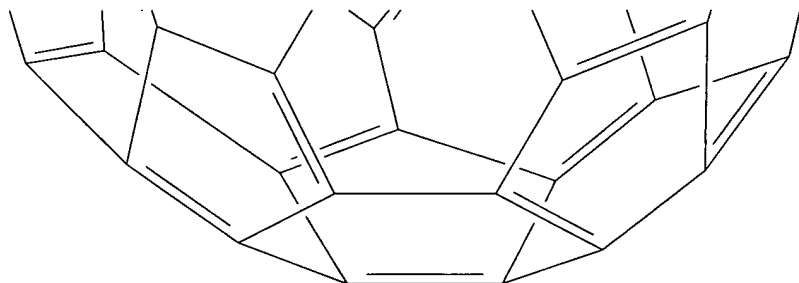
PAGE 2-A



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PAGE 3-B



IT 186907-06-2P 186907-07-3P 200393-49-3P

208390-48-1P 220632-78-0P

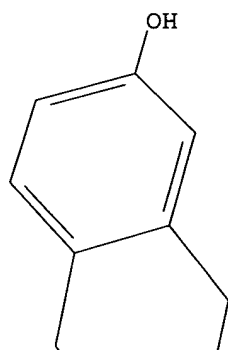
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 186907-06-2 HCAPLUS

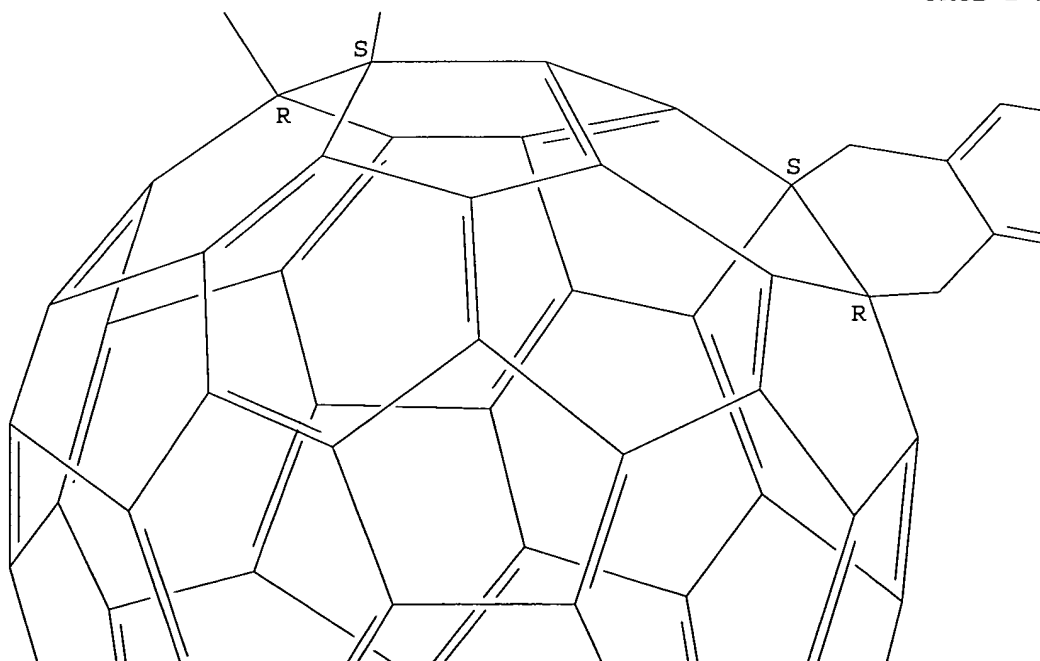
CN Dinaphtho[2',3':1,9;2'',3'':13,14][5,6]fullerene-C60-1h-7',7''-diol,
1',1'',4',4''-tetrahydro-, (1R,9S,13R,14S)-rel-(+)-(9CI) (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.

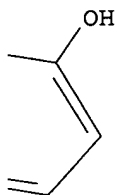
PAGE 1-A



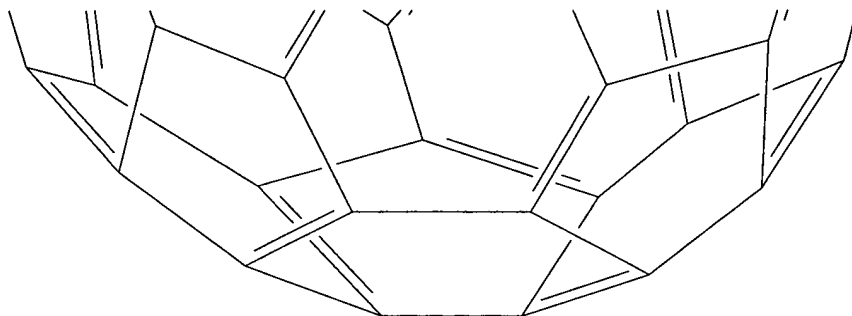
PAGE 2-A



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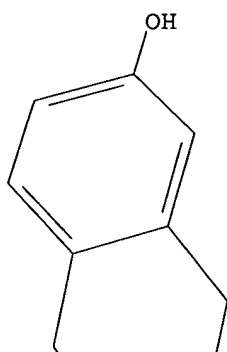
PAGE 3-A



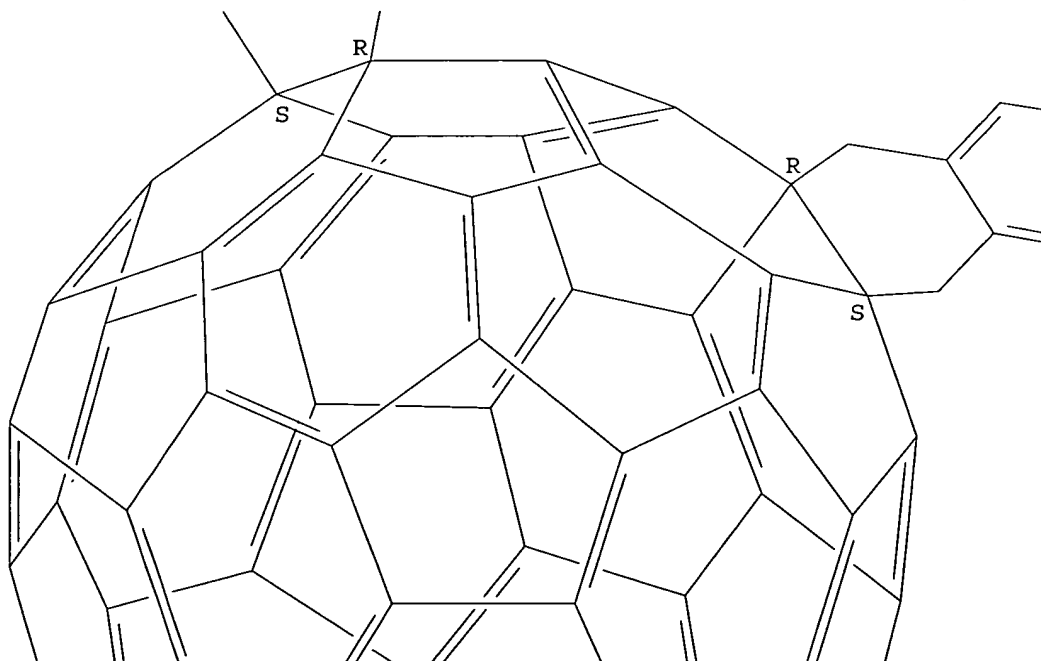
RN 186907-07-3 HCAPLUS
CN Dinaphtho[2',3':1,9;2'',3'':13,14] [5,6]fullerene-C₆₀-Ih-7',7''-diol,
1',1'',4',4''-tetrahydro-, (1R,9S,13R,14S)-rel-(-)- (9CI) (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

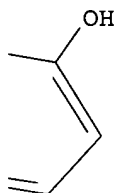
PAGE 1-A



PAGE 2-A

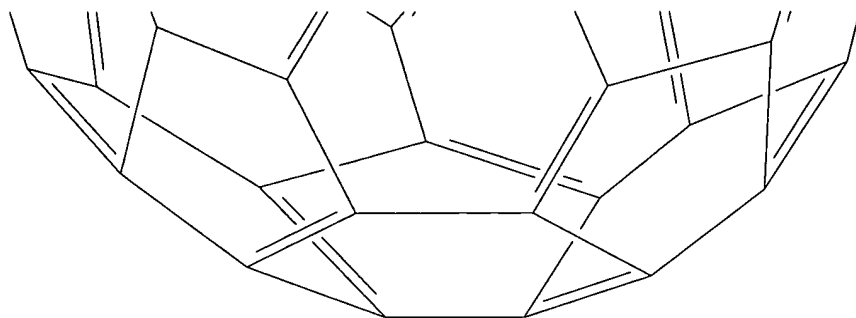


PAGE 2-B



Considered.
06/20/06
MCC

PAGE 3-A



RN 200393-49-3 HCAPLUS

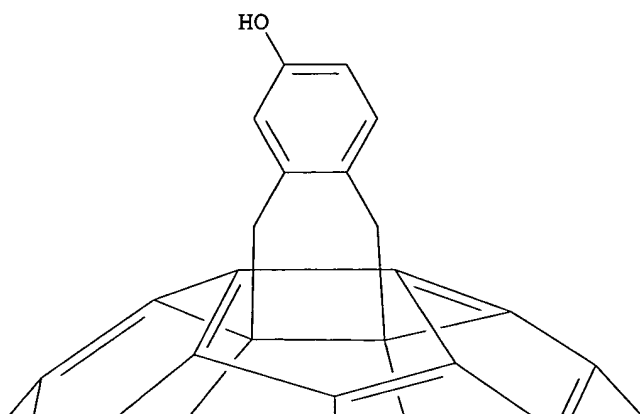
CN Dinaphtho[2',3':1,9;2'',3'':16,17][5,6]fullerene-C60-Ih-7',7''-diol,
1',1'',4',4''-tetrahydro- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

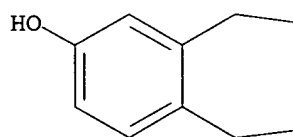
RN 208390-48-1 HCAPLUS

CN Dinaphtho[2',3':1,9;2'',3'':32,33][5,6]fullerene-C60-Ih-6'',7''-diol,
1',1'',4',4''-tetrahydro- (9CI) (CA INDEX NAME)

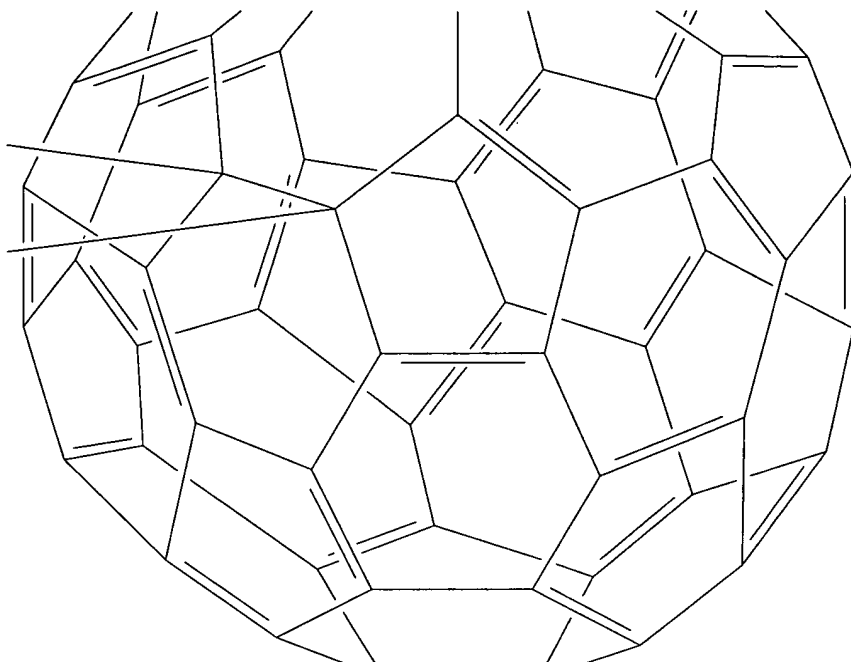
PAGE 1-B



PAGE 2-A



PAGE 2-B

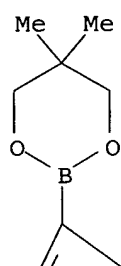


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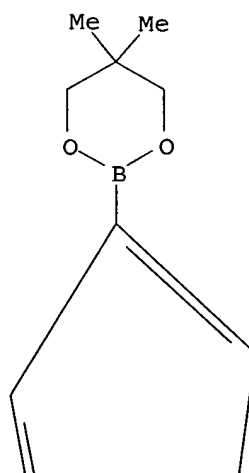


RN 220632-78-0 HCAPLUS
CN 1,3,2-Dioxaborinane, (1',1'',4',4''-tetrahydrodinaphtho[2',3':1,9;
2'',3'':16,17][5,6]fullerene-C60-Ih-6'',7'-diyl)bis[5,5-dimethyl- (9CI)
(CA INDEX NAME)

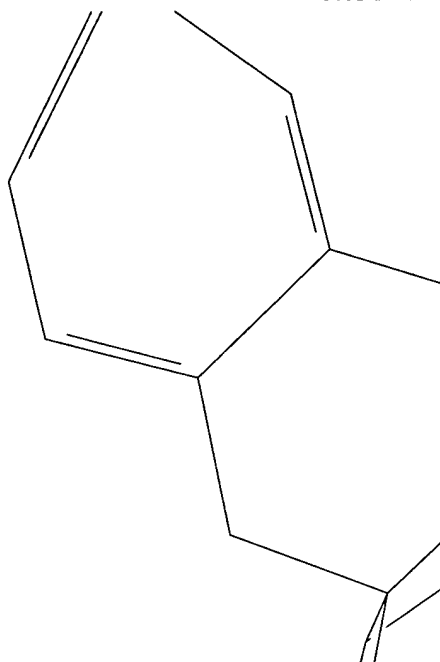
PAGE 1-A



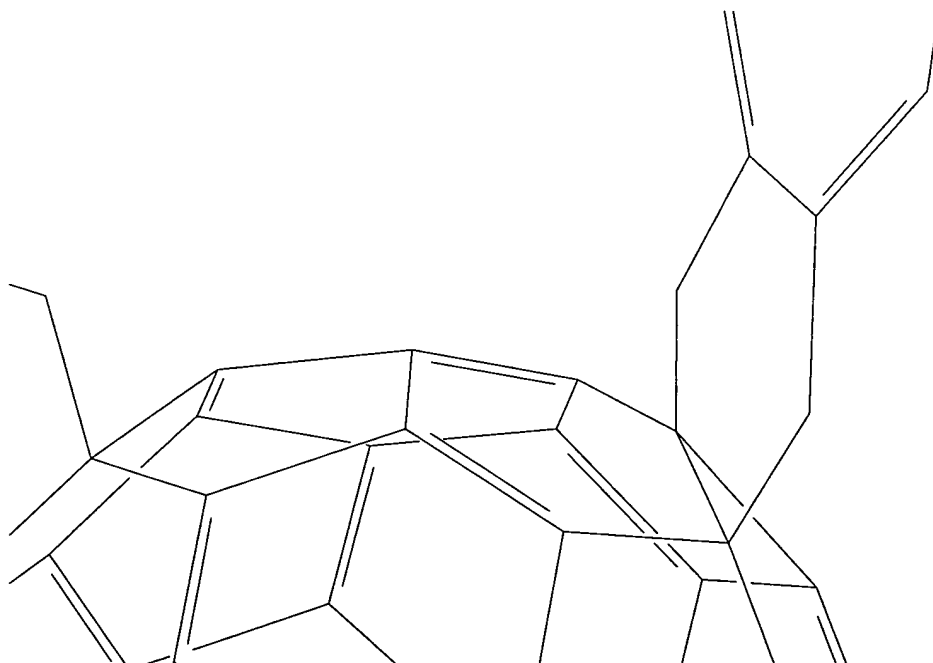
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PAGE 2-A



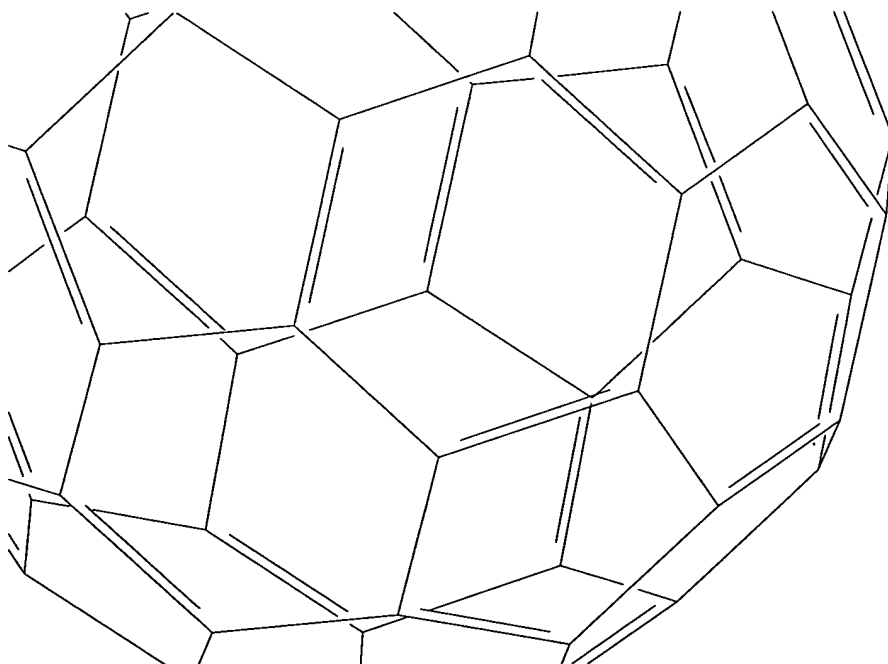
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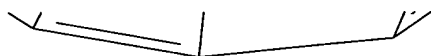
PAGE 3-A



PAGE 3-B



PAGE 4-B



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 51 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:168912 HCAPLUS

DOCUMENT NUMBER: 131:15525

TITLE: A small catalytic RNA motif with Diels-Alderase activity

AUTHOR(S): Seelig, Burckhard; Jaschke, Andres

CORPORATE SOURCE: Institut fur Biochemie der FU Berlin, Berlin, 14195, Germany

SOURCE: Chemistry & Biology (1999), 6(3), 167-176

CODEN: CBOLE2; ISSN: 1074-5521

PUBLISHER: Current Biology Publications

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 16 Mar 1999

AB The "RNA world" hypothesis requires that RNA be able to catalyze a wide variety of chemical reactions. In vitro selection from combinatorial RNA libraries has been used to identify several catalytic activities, most of which have resulted in a self-modification of RNA at one of its constituents. The formation of carbon-carbon bonds is considered an essential prerequisite for a complex metabolism based on RNA. We describe the selection and characterization of new ribozymes that catalyze carbon-carbon bond formation by **Diels-Alder** reaction of a biotinylated maleimide with an RNA-tethered anthracene. Secondary structure anal. identified a 49-nucleotide RNA motif that accelerates the reaction about 20,000-fold. The motif has only 11 conserved nucleotides that are present in most of the selected sequences. The ribozyme motif is remarkably adaptable with respect to cofactor and metal-ion requirements. The motif was also re-engineered to give a 38-mer RNA that can act as a "true" catalyst on short external substrate **oligonucleotide**-anthracene **conjugates**. We have identified a small, highly abundant RNA motif that can solve the complex task of forming two carbon-carbon bonds between two reactants in trans, a catalytic capacity useful for creating prebiotically relevant mols. This is the smallest and fastest RNA catalyst for carbon-carbon bond formation reported to date.

CC 7-2 (Enzymes)

IT **226092-90-6D**, complexes with RNA

RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(Diels-Alder reaction between anthracene and maleimide for selection of Diels-Alderase ribozymes)

IT **226092-91-7** **226092-92-8** 226387-59-3 226387-61-7

226558-51-6

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(Diels-Alderase ribozyme substrate **oligonucleotide conjugates**)

IT **226092-90-6D**, complexes with RNA

RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

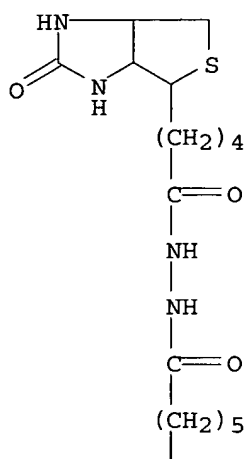
(Diels-Alder reaction between anthracene and maleimide for selection of Diels-Alderase ribozymes)

RN 226092-90-6 HCAPLUS

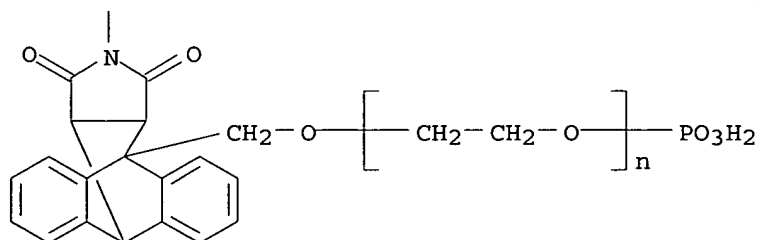
CN Poly(oxy-1,2-ethanediyl), α -phosphono- ω -[[2-[6-[2-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-

oxopentyl]hydrazino]-6-oxohexyl]-1,2,3,3a,9,9a-hexahydro-1,3-dioxo-4,9[1',2']-benzeno-4H-benz[f]isoindol-4-yl]methoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 226092-91-7 226092-92-8

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(Diels-Alderase ribozyme substrate oligonucleotide conjugates)

RN 226092-91-7 HCAPLUS

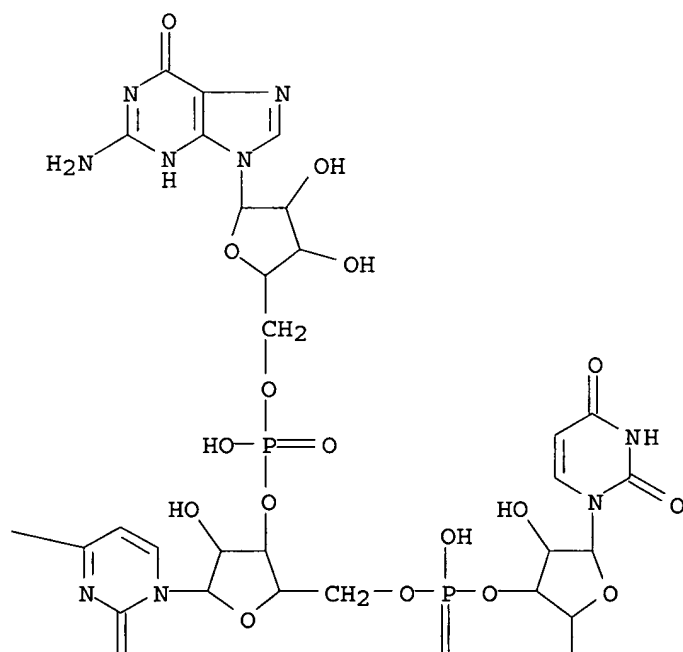
CN Poly(oxy-1,2-ethanediyl), α -(guanylyl-(5'→3')-cytidylyl-(5'→3')-uridylyl-(5'→3')-cytidyl-(5'→3')-guanylyl-(5'→3')-adenylyl-(5'→3')-guanylyl-(5'→3')-5'-guanylyl)- ω -[[2-[6-[2-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]hydrazino]-6-oxohexyl]-1,2,3,3a,9,9a-hexahydro-1,3-dioxo-4,9[1',2']-benzeno-4H-benz[f]isoindol-4-yl]methoxy] -

(9CI) (CA INDEX NAME)

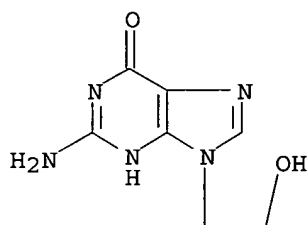
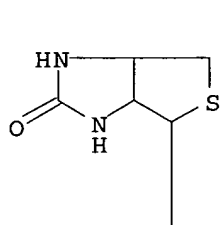
PAGE 1-A

H₂N—

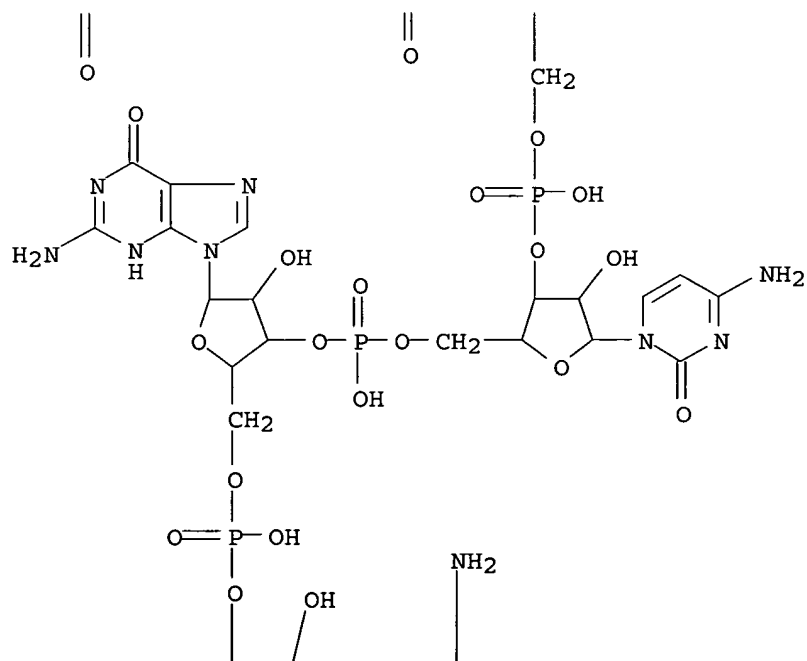
PAGE 1-B

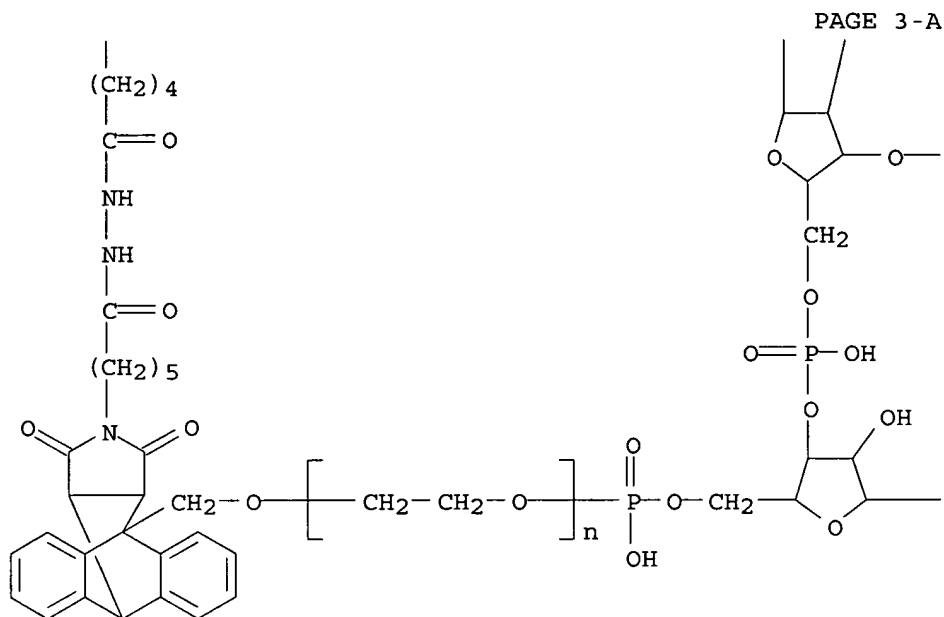


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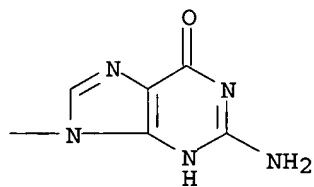
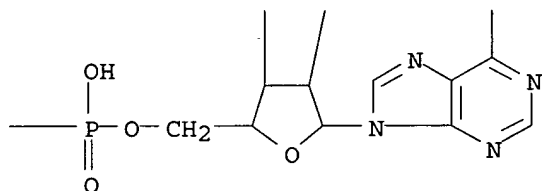


PAGE 2-B





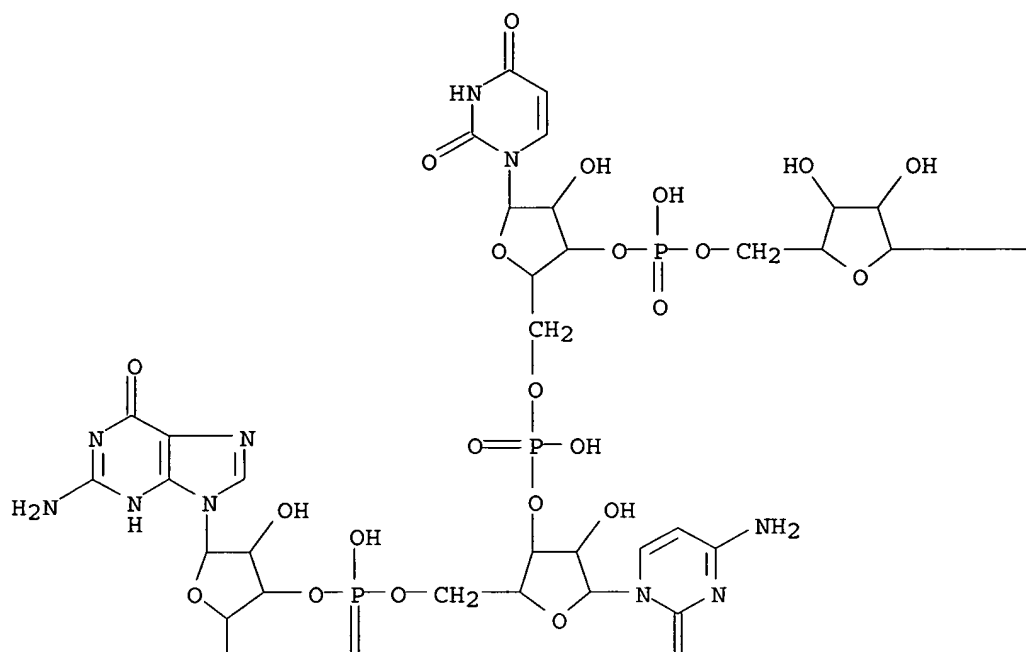
PAGE 3-B



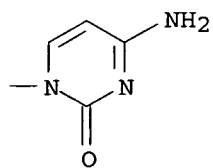
RN 226092-92-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(cytidylyl-(5'→3')-uridylyl-(5'→3')-cytidylyl-(5'→3')-guanylyl-(5'→3')-adenylyl-(5'→3')-guanylyl-(5'→3')-5'-guanylyl)- ω -[[2-[6-[2-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]hydrazino]-6-oxohexyl]-1,2,3,3a,9,9a-hexahydro-1,3-dioxo-4,9[1',2']-benzeno-4H-benz[f]isoindol-4-yl]methoxy]-(9CI) (CA INDEX NAME)

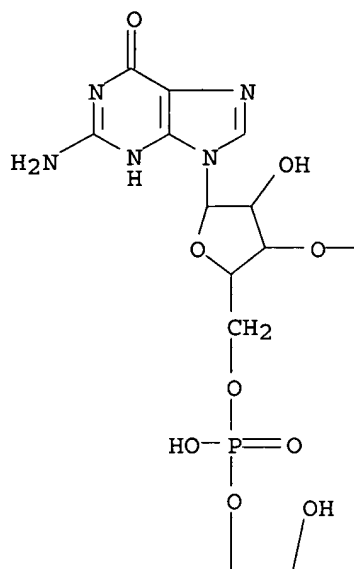
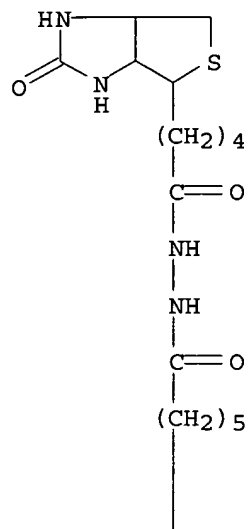
PAGE 1-B



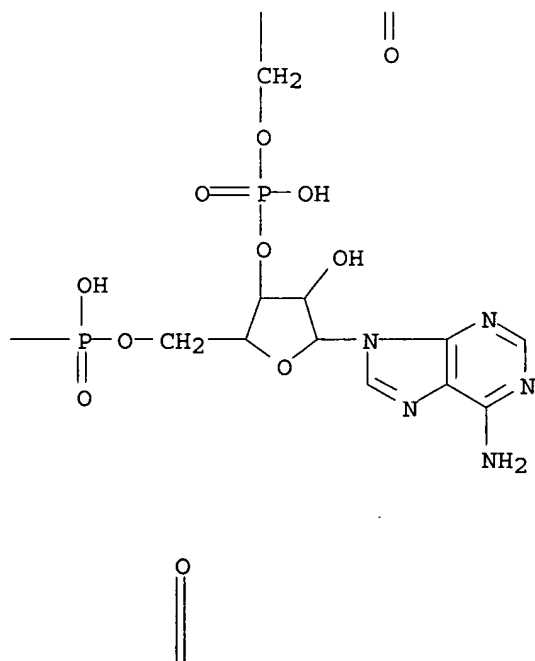
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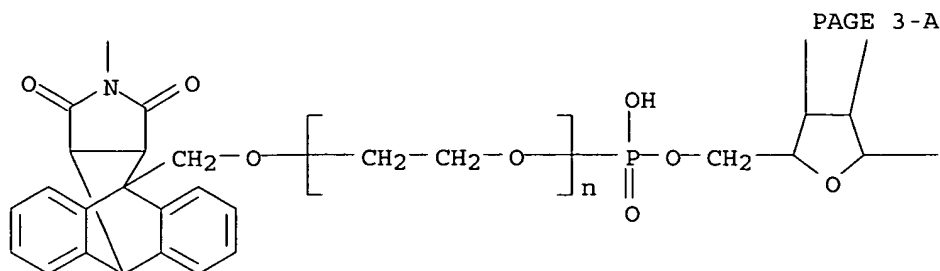


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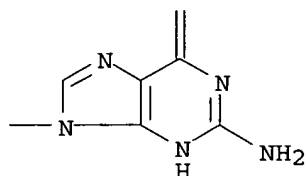


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PAGE 3-B



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 52 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:709088 HCAPLUS

DOCUMENT NUMBER: 129:343682

TITLE: Improved method for sequential solution-phase synthesis of oligonucleotides

INVENTOR(S): Pieken, Wolfgang; McGee, Danny; Settle, Alecia; Zhai, Yansheng; Huang, Jianping; Hill, Ken; Smith, Randall S.

PATENT ASSIGNEE(S): Nexstar Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 148 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9847910	A1	19981029	WO 1998-US8192	19980420 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
✓ CA 2286320	AA	19981029	CA 1998-2286320	19980420 <--
AU 9871520	A1	19981113	AU 1998-71520	19980420 <--
EP 979233	A1	20000216	EP 1998-918629	19980420 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001520660	T2	20011030	JP 1998-544503	19980420 <--

PRIORITY APPLN. INFO.:

US 1997-843820

A2 19970421 <--

WO 1998-US8192

W 19980420 <--

OTHER SOURCE(S): MARPAT 129:343682

ED Entered STN: 09 Nov 1998

AB PASS (Product-Anchored Sequential Synthesis) method which lends itself to automation and is suited for large-scale manufacture of oligonucleotides with high efficiency comprises (a) reacting a 5'-protected monomer [I; A, A' = substituent; B = nucleic base; DE = alc.-protecting group; D = H, OR4, CH2:CHCH:CHCH2CH2O, etc.; E = Ph3C; R4 = C1-20 alkyl, etc.; W = phosphoramidite, H-phosphonate, protected oligonucleotide, etc.] with a starting material to form a reaction mixture, and (b) partitioning the product from the reaction mixture containing starting material, unreacted 5'-protected monomer unit, side-products and reagents based on the presence of 5'-protecting/anchor group. As opposed to traditional schemes in which the 3'-end of the growing oligonucleotide is bound to a solid support, the PASS method uses a protective/anchor group, e.g., (4-CH2:CHCH:CHCH2CH2OC6H4)2CPh attached to the 5'-end of the growing oligonucleotide that reacts covalently with a derivatized solid support e.g., with II (L = linking group) to give **Diels-Alder** adduct III (A, B, L as above, W = growing oligonucleotide), and allows successfully coupled product to be separated from unreacted starting material. The coupling reaction occurs in solution and successfully coupled product will contain the protecting group while the unreacted oligomer ("failure sequence") will not. The oligonucleotide product is preferably separated from unreacted starting material each time a new coupling reaction is performed.

IC ICM C07H019-00

ICS C07H021-00; C07H021-02; C07H021-04

CC 33-9 (Carbohydrates)

IT 42926-80-7DP, polystyrene resin-bound 189940-69-0P 189940-70-3P
 189940-92-9P 189941-19-3P 215316-78-2P 215317-23-0P 215317-24-1DP,
 polystyrene resin-bound 215317-26-3DP, polystyrene resin-bound
 215317-27-4P **215317-34-3DP**, polystyrene derivative
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(improved method for sequential solution-phase synthesis of
 oligonucleotides)

IT 52203-73-3P 144845-96-5DP, polystyrene resin-bound 189940-71-4P
189940-95-2P 189941-07-9P 210476-88-3P **210476-96-3P**
 215316-10-2P 215316-11-3P 215316-12-4P 215316-13-5P 215317-30-9P
 215317-32-1P 215513-66-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(improved method for sequential solution-phase synthesis of
 oligonucleotides)

IT **215317-34-3DP**, polystyrene derivative

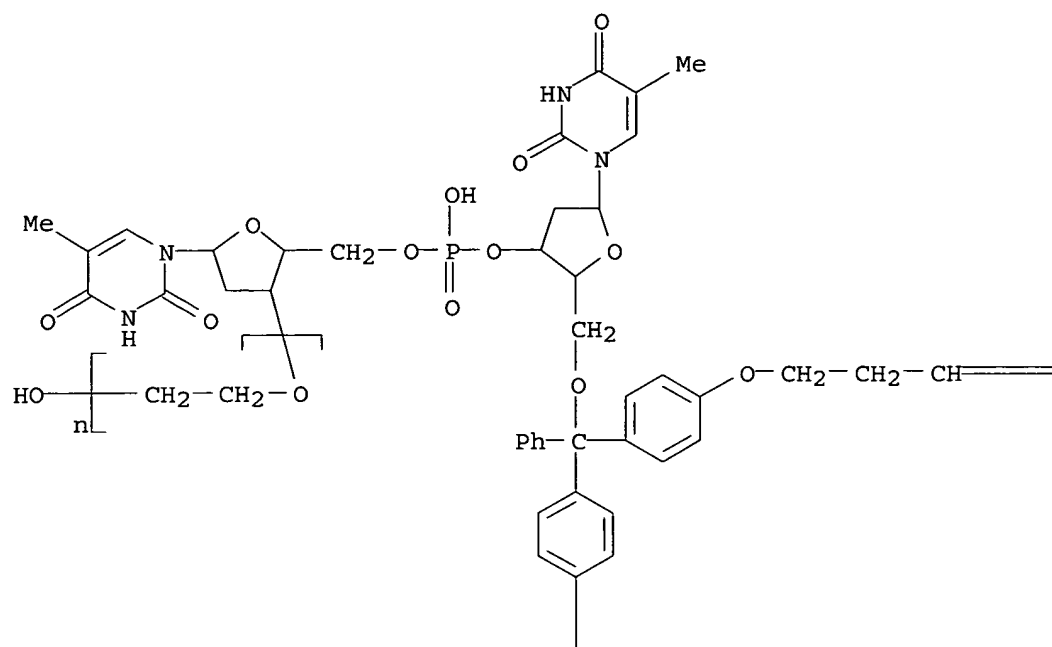
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(improved method for sequential solution-phase synthesis of
 oligonucleotides)

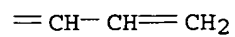
RN 215317-34-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-, 3'-monoether
 with 5'-O-[[4-[(3E)-3,5-hexadienyloxy]phenyl][4-[(2,3,3a,4,7,7a-hexahydro-
 1,3-dioxo-1H-isoindol-4-yl)methoxy]phenyl]phenylmethyl]thymidyl-
 (3'→5')-thymidine (9CI) (CA INDEX NAME)

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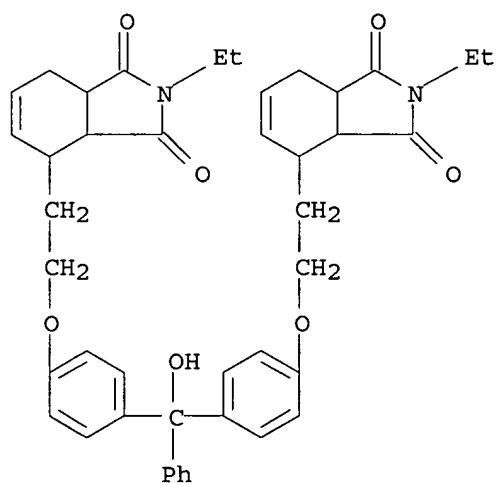
PAGE 1-B



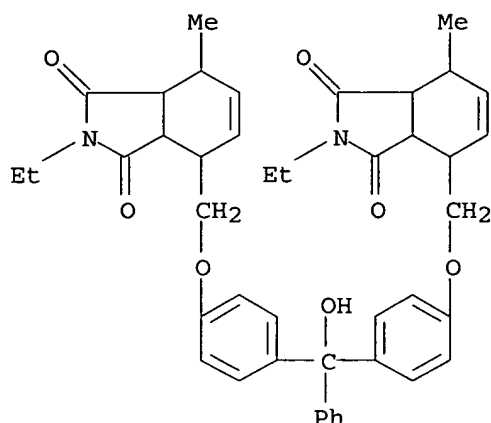
76-96-3P
g preparation): PEP (Preparati

RL: SPN (Synthetic preparation); PREP (Preparation)
(improved method for sequential solution-phase synthesis of
oligonucleotides)

CN	1H-Isindole-1,3(2H)-dione, 4,4'-[(hydroxyphenylmethylene)bis(4,1-phenyleneoxy-2,1-ethanediyl)]bis[2-ethyl-3a,4,7,7a-tetrahydro-	(9CI)	(CA)
	INDEX NAME)		



CN 1H-Isoidole-1,3 (2H) -dione, 4,4' -[(hydroxyphenylmethylene)bis(4,1-phenyleneoxymethylene)]bis[2-ethyl-3a,4,7,7a-tetrahydro-7-methyl- (9CI)
(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 53 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:708817 HCAPLUS

DOCUMENT NUMBER: 129:310884

TITLE: Anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity: compounds, compositions and methods

INVENTOR(S): Taatjes, Dylan J.; Fenick, David J.; Koch, Tad H.

PATENT ASSIGNEE(S): University Technology Corp., USA

SOURCE: PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846598	A1	19981022	WO 1998-US5495	19980319 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6677309	B1	20040113	US 1998-32424	19980227 <--
CA 2286181	AA	19981022	CA 1998-2286181	19980319 <--
AU 9867654	A1	19981111	AU 1998-67654	19980319 <--
AU 738263	B2	20010913		
EP 1015448	A1	20000705	EP 1998-912990	19980319 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002514213	T2	20020514	JP 1998-543909	19980319 <--
PRIORITY APPLN. INFO.:				
			US 1997-43465P	P 19970411 <--
			US 1998-32424	A 19980227 <--
			WO 1998-US5495	W 19980319 <--

OTHER SOURCE(S): MARPAT 129:310884

ED Entered STN: 09 Nov 1998

AB This invention provides anti-cancer drug aldehyde conjugates. More particularly provided are anthracycline formaldehyde conjugates. The dimeric formaldehyde conjugate of epidoxorubicin is more hydrolytically stable than the dimeric formaldehyde conjugate of doxorubicin and the dimeric formaldehyde conjugate of daunorubicin. Prodrugs which are more stable to hydrolysis are also provided.

IC ICM C07D413-14
ICS C07D413-02; A61K031-395

CC 1-6 (Pharmacology)
Section cross-reference(s): 33, 63

ST antitumor drug aldehyde **conjugate** prepn; anthracycline antitumor drug formaldehyde **conjugate** prepn; epidoxorubicin dimer formaldehyde **conjugate**; doxorubicin dimer formaldehyde **conjugate**; daunorubicin dimer formaldehyde **conjugate**; prodrug antitumor drug aldehyde **conjugate**

IT Antitumor agents
 Drug delivery systems
 Drug resistance
 (anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Aldehydes, biological studies
 Dimers
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT DNA
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
 (anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Anthracyclines
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antitumor; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Mammary gland
 (carcinoma, inhibitors; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Biological transport
 (drug; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT **Drug delivery systems**
 (liposomes; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Antitumor agents
 (mammary gland carcinoma; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Prostate gland
 (neoplasm, inhibitors; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Intercalation
 (**nucleic acid**; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT **Drug delivery systems**
 (prodrugs; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT Antitumor agents
 (prostate gland; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 20830-81-3, Daunorubicin
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 23214-92-8, Doxorubicin

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 214895-98-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 56420-45-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 214896-00-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 20830-81-3D, Daunorubicin, aldehyde **conjugates**

23214-92-8D, Doxorubicin, aldehyde **conjugates** 56420-45-2D, Epidoxorubicin, aldehyde **conjugates** 193743-46-3 193743-47-4 193743-48-5 193743-49-6 205499-28-1 214895-89-3 214895-93-9 214895-95-1 214911-12-3 214911-13-4 214911-14-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 80458-01-1

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 214896-03-4

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 50-00-0, Formaldehyde, reactions 108-24-7, Acetic anhydride 541-41-3,

Ethyl chloroformate 23541-50-6, Daunorubicin hydrochloride

25316-40-9, Doxorubicin hydrochloride 56390-09-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

IT 20830-81-3, Daunorubicin

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PROC (Process); RACT (Reactant

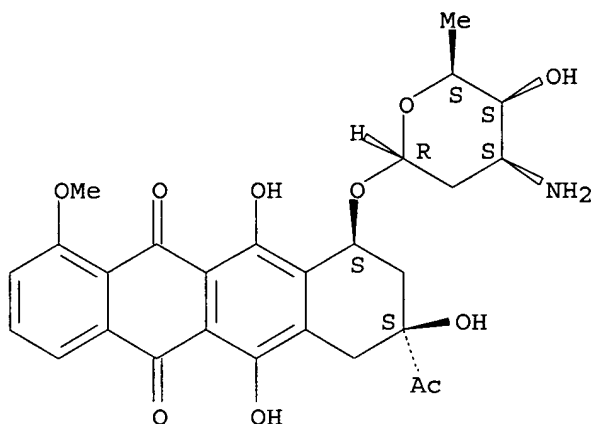
or reagent); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 20830-81-3D, Daunorubicin, aldehyde **conjugates**

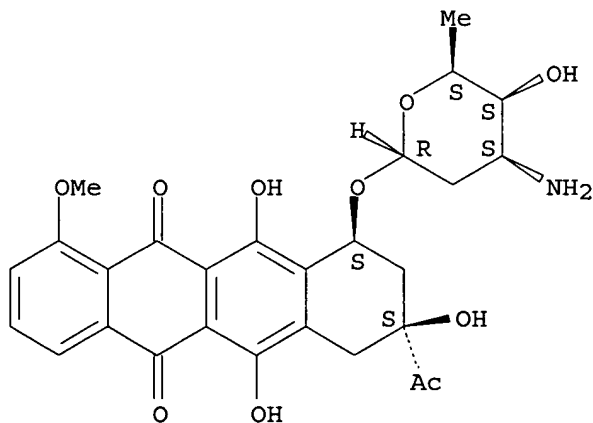
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-cancer drug aldehyde **conjugate** drugs with enhanced cytotoxicity, preparation, and compns.)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 25316-40-9, Doxorubicin hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)

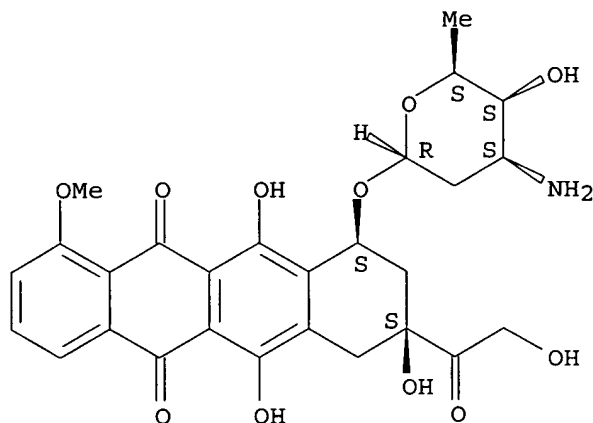
(reaction; anti-cancer drug aldehyde **conjugate** drugs with

enhanced cytotoxicity, preparation, and compns.)

RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 54 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:568748 HCAPLUS

DOCUMENT NUMBER: 129:170520

TITLE: Cholecystokinin A (CCK A) receptor binding moiety

conjugate compositions that bind to pancreatic cancer cells and methods of using them in the diagnosis and treatment of pancreatic cancer

INVENTOR(S): Weinberg, David; Waldman, Scott A.; Barber, Michael T.; Biswas, Sanjoy

PATENT ASSIGNEE(S): Thomas Jefferson University, USA

SOURCE: PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835707	A1	19980820	WO 1998-US3168	19980218 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

AU 9866592	A1	19980908	AU 1998-66592	19980218 <--
US 6187536	B1	20010213	US 1998-25534	19980218 <--
PRIORITY APPLN. INFO.:			US 1997-38063P	P 19970218 <--
			WO 1998-US3168	W 19980218 <--

ED Entered STN: 07 Sep 1998

AB Conjugated compds. are disclosed which comprise a CCK A receptor binding moiety and a radiostable active moiety (e.g. a cytotoxic agent). Pharmaceutical compns. comprising conjugated compound which comprises a CCK A receptor binding moiety and a radiostable active moiety or a CCK A receptor binding moiety and a radioactive active moiety are also disclosed. Methods of treating an individual suspected of suffering from pancreatic cancer are disclosed. Methods of radioimaging pancreatic cancer cells are disclosed. In vitro methods, kits, and reagents are disclosed for determining whether or not an individual has pancreatic cancer cells, for determining whether tumor cells are pancreatic in origin, and for analyzing tissue samples to evaluate the extent of metastasis of pancreatic tumor cells.

IC ICM A61K051-00

ICS A61M036-14

CC 1-6 (Pharmacology)

Section cross-reference(s): 8, 63

ST CCKA receptor ligand **conjugate** pancreas antitumor; diagnosis pancreatic cancer CCKA receptor ligand; radioimaging pancreatic cancer CCKA receptor ligand; metastasis pancreatic cancer evaluation; cholecystokinin receptor ligand pancreas antitumor diagnosis

IT Cytotoxic agents

Drugs

Radioactive substances

(CCKA receptor binding moiety **conjugates**; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(CCKA receptor binding moiety **conjugates**; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT cDNA

mRNA

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(CCKA receptor-encoding; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT Glycoproteins, specific or class

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(CVF (cobra venom factor), CCKA receptor binding moiety **conjugates**; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(ML-I (mistletoe lectin I), CCKA receptor binding moiety

- conjugates**; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)
- IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)
(PAP (pokeweed antiviral **protein**), CCKA receptor binding
moiety **conjugates**; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)
- IT Abrins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)
(and abrin A chain, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)
- IT Ricins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)
(and ricin A chain, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)
- IT **Nucleic acid hybridization**
(branched **oligonucleotide** hybridization; cholecystokinin A
receptor binding moiety **conjugate** compns. binding to
pancreatic cancer cells, and methods for diagnosis and treatment of
pancreatic cancer)
- IT Animal tissue
Body fluid
Drug delivery systems
Immunoassay
PCR (polymerase chain reaction)
Pancreas, neoplasm
Scintigraphic agents
Test kits
(cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)
- IT Cholecystokinin receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)
(cholecystokinin A, ligands, **conjugates**; cholecystokinin A
receptor binding moiety **conjugate** compns. binding to
pancreatic cancer cells, and methods for diagnosis and treatment of
pancreatic cancer)
- IT **Nucleic acids**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery to pancreatic cancer; cholecystokinin A receptor binding
moiety **conjugate** compns. binding to pancreatic cancer cells,
and methods for diagnosis and treatment of pancreatic cancer)
- IT Toxins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(diphtheria, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)

IT Pseudomonas

(exotoxin, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(exotoxins, Pseudomonas, CCKA receptor binding moiety
conjugates; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)

IT Pancreas, neoplasm

Pancreas, neoplasm

(inhibitors; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)

IT Antitumor agents

Antitumor agents

(pancreas; cholecystokinin A receptor binding moiety **conjugate**
compns. binding to pancreatic cancer cells, and methods for diagnosis
and treatment of pancreatic cancer)

IT Proliferation inhibition

(proliferation inhibitors, CCKA receptor binding moiety
conjugates; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)

IT Protamines

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(purothionins, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)

IT Receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)

(receptor binding assay; cholecystokinin A receptor binding moiety
conjugate compns. binding to pancreatic cancer cells, and
methods for diagnosis and treatment of pancreatic cancer)

IT **Proteins, specific or class**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(saporins, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.
binding to pancreatic cancer cells, and methods for diagnosis and
treatment of pancreatic cancer)

IT 9001-99-4, Ribonuclease

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)

(Bovine pancreatic, CCKA receptor binding moiety **conjugates**;
cholecystokinin A receptor binding moiety **conjugate** compns.)

binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT 9001-86-9, Phospholipase C
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (Clostridium perfringens, CCKA receptor binding moiety **conjugates**; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT 51-21-8D, 5-Fluorouracil, CCKA receptor binding moiety **conjugates**
 59-05-2D, Methotrexate, CCKA receptor binding moiety **conjugates**
 68-76-8D, Trenimon, CCKA receptor binding moiety **conjugates**
 106-51-4D, 1,4-Benzoquinone, derivs., CCKA receptor binding moiety **conjugates** 147-94-4D, Cytosine arabinoside, CCKA receptor binding moiety **conjugates** 148-82-3D, Melphalan, CCKA receptor binding moiety **conjugates** 305-03-3D, Chlorambucil, CCKA receptor binding moiety **conjugates** 443-48-1D, Metronidazole, CCKA receptor binding moiety **conjugates** 1404-00-8D, Mitomycin, CCKA receptor binding moiety **conjugates** 9001-78-9D, CCKA receptor binding moiety **conjugates** 10043-66-0D, Iodine-131, compds. with CCKA receptor binding moiety, biological studies 10098-91-6D, Yttrium-90, compds. with CCKA receptor binding moiety, biological studies 11056-06-7D, Bleomycin, CCKA receptor binding moiety **conjugates** 12634-34-3D, Macromomycin, CCKA receptor binding moiety **conjugates** 13551-87-6D, Misonidazole, CCKA receptor binding moiety **conjugates** 13981-50-5D, Cobalt-57, compds. with CCKA receptor binding moiety, biological studies 13981-51-6D, Mercury-197, compds. with CCKA receptor binding moiety, biological studies 14093-04-0D, Iron-52, compds. with CCKA receptor binding moiety, biological studies 14119-09-6D, Gallium-67, compds. with CCKA receptor binding moiety, biological studies 14119-24-5D, Osmium-191, compds. with CCKA receptor binding moiety, biological studies 14158-31-7D, Iodine-125, compds. with CCKA receptor binding moiety, biological studies 14265-75-9D, Lutetium-177, compds. with CCKA receptor binding moiety, biological studies 14374-81-3D, Germanium-71, compds. with CCKA receptor binding moiety, biological studies 14378-26-8D, Rhenium-188, compds. with CCKA receptor binding moiety, biological studies 14391-11-8D, **Gold**-199, compds. with CCKA receptor binding moiety, biological studies 14391-19-6D, Terbium-161, compds. with CCKA receptor binding moiety, biological studies 14391-96-9D, Scandium-47, compds. with CCKA receptor binding moiety, biological studies 14596-37-3D, Phosphorus-32, compds. with CCKA receptor binding moiety, biological studies 14683-06-8D, Tin-121, compds. with CCKA receptor binding moiety, biological studies 14683-16-0D, Iodine-132, compds. with CCKA receptor binding moiety, biological studies 14687-25-3D, Lead-203, compds. with CCKA receptor binding moiety, biological studies 14687-61-7D, Arsenic-77, compds. with CCKA receptor binding moiety, biological studies 14903-02-7D, Potassium-43, compds. with CCKA receptor binding moiety, biological studies 14913-49-6D, Bismuth-212, compds. with CCKA receptor binding moiety, biological studies 14913-89-4D, compds. with CCKA receptor binding moiety, biological studies 14914-68-2D, Antimony-119, compds. with CCKA receptor binding moiety, biological studies 14914-76-2D, Cesium-131, compds. with CCKA receptor binding moiety, biological studies 14967-68-1D, Palladium-103, compds. with CCKA receptor binding moiety, biological studies 14981-64-7D, Palladium-109, compds. with CCKA receptor binding moiety, biological studies 14981-79-4D, Praseodymium-143, compds. with CCKA receptor binding moiety, biological studies 14998-63-1D, Rhenium-186, compds. with CCKA receptor binding moiety, biological studies 15047-05-9D, Cesium-129, compds. with

CCKA receptor binding moiety, biological studies 15092-94-1D, Lead-212, compds. with CCKA receptor binding moiety, biological studies 15663-27-1D, cis-Platinum, CCKA receptor binding moiety **conjugates** 15715-08-9D, Iodine-123, compds. with CCKA receptor binding moiety, biological studies 15720-35-1D, Cesium-127, compds. with CCKA receptor binding moiety, biological studies 15749-66-3D, Phosphorus-33, compds. with CCKA receptor binding moiety, biological studies 15750-15-9D, Indium-111, compds. with CCKA receptor binding moiety, biological studies 15755-39-2D, Astatine-211, compds. with CCKA receptor binding moiety, biological studies 15757-14-9D, Gallium-68, compds. with CCKA receptor binding moiety, biological studies 15757-86-5D, Copper-67, compds. with CCKA receptor binding moiety, biological studies 15760-04-0D, Silver-111, compds. with CCKA receptor binding moiety, biological studies 15765-39-6D, Bromine-77, compds. with CCKA receptor binding moiety, biological studies 15776-19-9D, Bismuth-206, compds. with CCKA receptor binding moiety, biological studies 18268-34-3D, Rubidium-81, compds. with CCKA receptor binding moiety, biological studies **20830-81-3D**, Daunorubicin, CCKA receptor binding moiety **conjugates** 23214-92-8D, Doxorubicin, CCKA receptor binding moiety **conjugates** 33419-42-0D, Etoposide, CCKA receptor binding moiety **conjugates** 36877-68-6D, Nitroimidazole, CCKA receptor binding moiety **conjugates** 53643-48-4D, Vindesine, CCKA receptor binding moiety **conjugates** 65988-88-7D, Modeccin, CCKA receptor binding moiety **conjugates** 75037-46-6D, Gelonin, CCKA receptor binding moiety **conjugates** 91933-11-8D, Volkensin, CCKA receptor binding moiety **conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(cholecystokinin A receptor binding moiety **conjugate** compns.

binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT 13982-64-4, Strontium-87, biological studies 14133-76-7, Technetium-99, biological studies 14885-78-0, Indium-113, biological studies 15678-91-8, Krypton-81, biological studies 15735-70-3, Platinum-193, biological studies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(metastable, compds. with CCKA receptor binding moiety; cholecystokinin A receptor binding moiety **conjugate** compns. binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

IT **20830-81-3D**, Daunorubicin, CCKA receptor binding moiety **conjugates**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

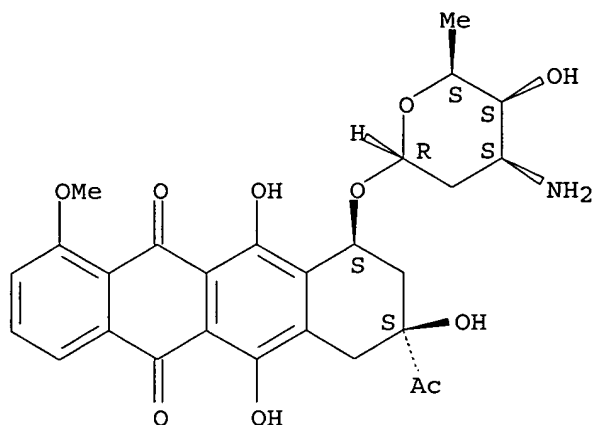
(cholecystokinin A receptor binding moiety **conjugate** compns.

binding to pancreatic cancer cells, and methods for diagnosis and treatment of pancreatic cancer)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 55 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:568745 HCAPLUS

DOCUMENT NUMBER: 129:193708

TITLE: Targeted therapeutic delivery of vitamin D compounds

INVENTOR(S): Mazess, Richard B.; Bishop, Charles W.

PATENT ASSIGNEE(S): Bone Care International, Inc., USA

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835704	A1	19980820	WO 1998-US2899	19980213 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2279590	AA	19980820	CA 1998-2279590	19980213 <--
AU 9863267	A1	19980908	AU 1998-63267	19980213 <--
AU 750451	B2	20020718		
EP 981376	A1	20000301	EP 1998-907468	19980213 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 336924	A	20010629	NZ 1998-336924	19980213 <--
JP 2001511811	T2	20010814	JP 1998-535974	19980213 <--
BR 9815442	A	20010821	BR 1998-15442	19980213 <--
US 2002136731	A1	20020926	US 2000-402636	20000426 <--
US 6929797	B2	20050816		
US 2003129194	A1	20030710	US 2002-251905	20020920 <--
US 2006034851	A1	20060216	US 2005-211965	20050825 <--
PRIORITY APPLN. INFO.:				
			US 1997-38364P	P 19970213 <--
			WO 1998-US2899	W 19980213 <--
			US 2000-402636	A2 20000426 <--

US 2002-251905

B1 20020920

ED Entered STN: 07 Sep 1998

AB The present invention is directed to a conjugate which includes at least one vitamin D moiety thereof and at least one targeting mol. moiety to pharmaceutical compns. of the conjugate, and to methods for using the conjugate for target-specific delivery of vitamin D or analogs thereof to tissues in need thereof. When a particularly preferred form is administered to a patient, the targeting mol. component of the conjugate of this invention seeks out and binds to a tissue of interest, such as bone or tumor tissue, where the vitamin D has a therapeutic effect. A conjugate of 1 α ,24-dihydroxyvitamin D2 and aminoalkyl 1,1-bisphosphonate linked at C-24 of the vitamin D moiety was prepared

IC ICM A61K047-48

ICS A61K031-59

CC 63-5 (Pharmaceuticals)

ST drug targeting vitamin D2 bisphosphonate **conjugate**

IT Estrogens

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiestrogens; vitamin D2 **conjugates** for targeted delivery)

IT Estrogens

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugated**; vitamin D2 **conjugates** for targeted delivery)

IT **Drug delivery systems**(enteric-coated; vitamin D2 **conjugates** for targeted delivery)IT **Drug delivery systems**(oral; vitamin D2 **conjugates** for targeted delivery)

IT Toxins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pertussis; vitamin D2 **conjugates** for targeted delivery)

IT Bone, disease

(treatment of; vitamin D2 **conjugates** for targeted delivery)

IT Antitumor agents

Cytotoxic agents

Drug targeting(vitamin D2 **conjugates** for targeted delivery)IT Bone morphogenetic **proteins**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vitamin D2 **conjugates** for targeted delivery)

IT Transforming growth factors

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(β -; vitamin D2 **conjugates** for targeted delivery)

IT 75-44-5, Phosgene 107-30-2, Chloromethyl methyl ether 18162-48-6,
tert-Butyldimethylsilyl chloride 70550-73-1 81522-68-1 144034-23-1
211865-86-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of vitamin D2 analog-bisphosphonate **conjugates** for
targeted delivery)

IT 140710-96-9P 211865-87-1P 211865-88-2P 211865-89-3P 211865-90-6P

211865-92-8P 211865-93-9P 211865-94-0P 211865-95-1P 211865-96-2P

211865-97-3P 211865-98-4P 211865-99-5P 211866-01-2P 211866-02-3P

211866-03-4P 211866-04-5P 211866-06-7P 211866-07-8P 211866-08-9P

211866-09-0P 211866-10-3P 211866-11-4P 211866-12-5P 211866-13-6P

211866-15-8P 211866-16-9P 211866-17-0P 211866-19-2P 211866-20-5P

211866-21-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of vitamin D2 analog-bisphosphonate **conjugates** for
targeted delivery)

IT 211865-91-7P 211866-00-1P 211866-05-6P 211866-14-7P 211866-18-1P

211866-22-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of vitamin D2 analog-bisphosphonate **conjugates** for targeted delivery)

IT 51-21-8, 5-Fluorouracil 53-43-0, Dehydroepiandrosterone 59-05-2, Methotrexate 60-54-8, Tetracycline 127-07-1, Hydroxyurea 148-82-3, Melphalan 1404-00-8, Mitomycin 7440-42-8, Boron, biological studies 9007-12-9, Calcitonin 13408-78-1, Cobalamin 15663-27-1, Cisplatin 20830-81-3, Daunomycin 25316-40-9, Adriamycin 29069-24-7, Prednimustine 58957-92-9, Idarubicin 62899-40-5, Estromustine 114949-22-3, Activin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin D2 **conjugates** for targeted delivery)

IT 20830-81-3, Daunomycin 25316-40-9, Adriamycin

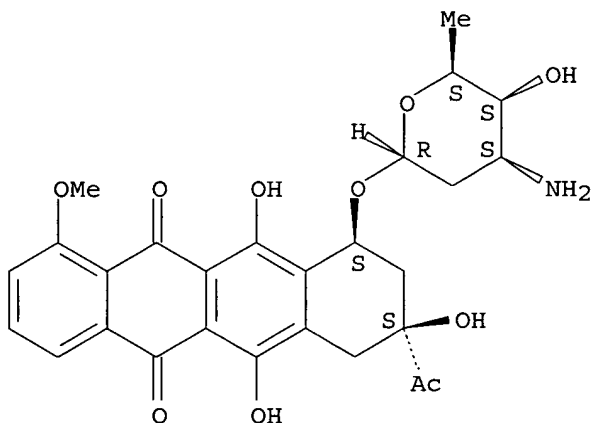
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin D2 **conjugates** for targeted delivery)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

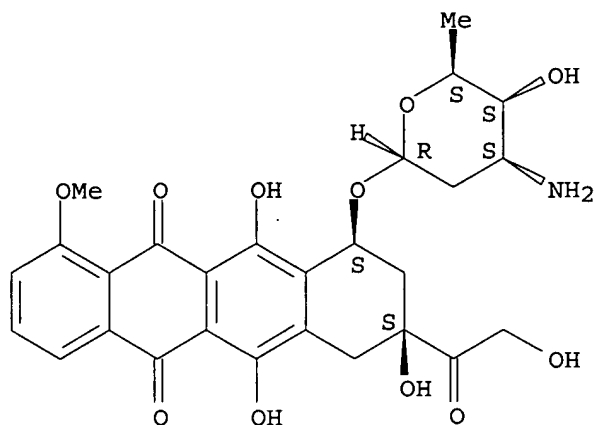
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 56 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:568729 HCAPLUS
 DOCUMENT NUMBER: 129:193707
 TITLE: Method for destroying retinal pigment epithelial cells
 INVENTOR(S): Bretton, Randolph H.
 PATENT ASSIGNEE(S): Storz Instrument Company, USA
 SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835688	A1	19980820	WO 1998-US1408	19980128 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2281690	AA	19980820	CA 1998-2281690	19980128 <--
AU 9859307	A1	19980908	AU 1998-59307	19980128 <--
AU 723614	B2	20000831		
EP 1027065	A1	20000816	EP 1998-902715	19980128 <--
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
US 6138680	A	20001031	US 1998-14492	19980128 <--
JP 2002501483	T2	20020115	JP 1998-535755	19980128 <--
BR 9807365	A	20020205	BR 1998-7365	19980128 <--
PRIORITY APPLN. INFO.:			US 1997-37994P	P 19970213 <--
			WO 1998-US1408	W 19980128 <--

ED Entered STN: 07 Sep 1998

- AB A method for destroying retinal pigment epithelial cells in an eye in order to prevent the occurrence of proliferative vitreoretinopathy. A solution containing a basement membrane binding agent conjugated to a cytotoxic agent is introduced into the vitreous chamber. The solution is maintained in the vitreous chamber for a period of time sufficient to permit the basement membrane binding agent to bind to basement membranes lining the vitreous chamber. The solution is then removed from the vitreous chamber, whereby a portion of the basement membrane binding agent remains bonded to basement membranes within the vitreous chamber, thereby exposing retinal pigment epithelial cells disposed on the basement membrane to the cytotoxic agent. A conjugate of polylysine and saporin was prepared by coupling polylysine to SPDP, the free SPDP was then removed. The resulting polylysine-SPDP was then reduced with dithiothreitol. Saporin was then coupled with SPDP in the same manner and added to the soln of polylysine-SPDP. The resulting solution filtered to remove uncoupled agents, thereby producing a conjugated polylysine-saporin solution
- IC ICM A61K038-00
- CC 63-5 (Pharmaceuticals)
- Section cross-reference(s): 1
- ST retina pigment epithelium proliferative vitreoretinopathy; basement membrane binding **conjugate** cytotoxic agent
- IT Ricins
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (**conjugates** with basement membrane binding agent; method for destroying retinal pigment epithelial cells)
- IT **Decorins**
- Fibrinogens**
- Fibrins
- Fibronectins
- Laminins
- Tenascins
- Thrombospondins
- Vitronectin
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (**conjugates** with cytotoxic agents; method for destroying retinal pigment epithelial cells)
- IT **Proteoglycans, biological studies**
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (perlecans, **conjugates** with cytotoxic agents; method for destroying retinal pigment epithelial cells)
- IT **Proteins, specific or class**
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (saporins, **conjugates** with basement membrane binding agent; method for destroying retinal pigment epithelial cells)
- IT **Drug delivery systems**
- (solns.; method for destroying retinal pigment epithelial cells)
- IT Collagens, biological studies
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (type IV, **conjugates** with cytotoxic agents; method for destroying retinal pigment epithelial cells)

IT Alkaloids, biological studies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vinca, **conjugates** with basement membrane binding agent;
 method for destroying retinal pigment epithelial cells)

IT 51-21-8D, 5-Fluorouracil, **conjugates** with basement membrane binding agent 59-05-2D, Methotrexate, **conjugates** with basement membrane binding agent 64-86-8D, Colchicine, **conjugates** with basement membrane binding agent 630-60-4D, Ouabain, **conjugates** with basement membrane binding agent 865-21-4D, Vinblastine, **conjugates** with basement membrane binding agent 9004-54-0D, **Dextran**, **conjugates** with cytotoxic agents, biological studies 9004-61-9D, Hyaluronic acid, **conjugates** with cytotoxic agents 9005-49-6D, Heparin, **conjugates** with cytotoxic agents, biological studies 9007-28-7D, Chondroitin sulfate, **conjugates** with cytotoxic agents 9042-14-2D, **Dextran** sulfate, **conjugates** with cytotoxic agents 9050-30-0D, Heparan sulfate, **conjugates** with cytotoxic agents 17090-79-8D, Monensin, **conjugates** with basement membrane binding agent 20830-81-3D, Daunomycin, **conjugates** with basement membrane binding agent 23214-92-8D, Doxorubicin, **conjugates** with basement membrane binding agent 24937-47-1D, Polyarginine, **conjugates** with cytotoxic agents 25104-18-1D, Polylysine, **conjugates** with cytotoxic agents 25212-18-4D, Polyarginine, **conjugates** with cytotoxic agents 37270-94-3D, Blood Platelet factor iv, **conjugates** with cytotoxic agents 65271-80-9D, Mitoxanthrone, **conjugates** with basement membrane binding agent
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (method for destroying retinal pigment epithelial cells)

IT 9004-54-0D, **Dextran**, **conjugates** with cytotoxic agents, biological studies 9004-61-9D, Hyaluronic acid, **conjugates** with cytotoxic agents 9005-49-6D, Heparin, **conjugates** with cytotoxic agents, biological studies 9007-28-7D, Chondroitin sulfate, **conjugates** with cytotoxic agents 9042-14-2D, **Dextran** sulfate, **conjugates** with cytotoxic agents 9050-30-0D, Heparan sulfate, **conjugates** with cytotoxic agents 20830-81-3D, Daunomycin, **conjugates** with basement membrane binding agent
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (method for destroying retinal pigment epithelial cells)

RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 9004-61-9 HCAPLUS
 CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 9005-49-6 HCAPLUS
 CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 9007-28-7 HCAPLUS
 CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

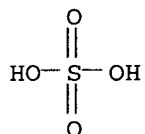
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (9CI) (CA INDEX NAME)

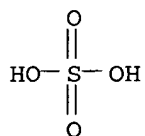
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

CM 1

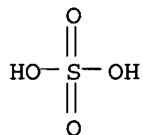
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CMF Unspecified
CCI MAN

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CM 2

CRN 7664-93-9

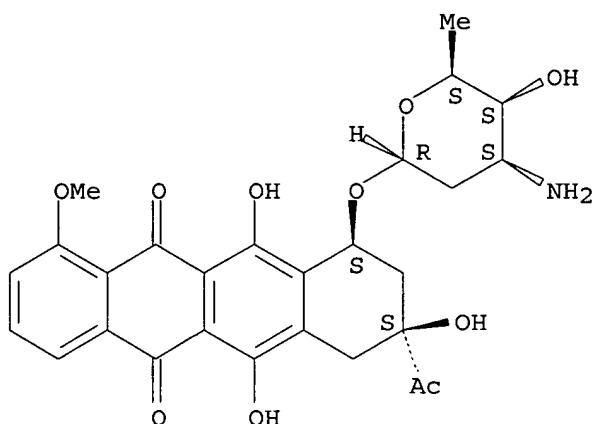
CMF H2 O4 S



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 57 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1022669 HCAPLUS

DOCUMENT NUMBER: 141:420426

TITLE: Antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol

INVENTOR(S): Kratz, Felix

PATENT ASSIGNEE(S): Germany

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9810794	A2	19980319	WO 1997-DE2000	19970909 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG

DE 19636889	A1	19980312	DE 1996-19636889	19960911 <--
CA 2265861	AA	19980319	CA 1997-2265861	19970909 <--
AU 9745489	A1	19980402	AU 1997-45489	19970909 <--
EP 934081	A2	19990811	EP 1997-943750	19970909 <--
EP 934081	B1	20040609		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI

JP 2001500133	T2	20010109	JP 1998-513144	19970909 <--
AT 268608	E	20040615	AT 1997-943750	19970909 <--
US 6310039	B1	20011030	US 1999-254598	19990521 <--
US 2002019343	A1	20020214	US 2001-931940	20010820 <--
US 6709679	B2	20040323		

PRIORITY APPLN. INFO.:

DE 1996-19636889	A	19960911 <--
WO 1997-DE2000	W	19970909 <--
US 1999-254598	A1	19990521 <--

OTHER SOURCE(S): MARPAT 141:420426

ED Entered STN: 29 Nov 2004

AB The invention discloses conjugates of (native or thiolated) transferrin or (native or thiolated) **albumin**, or of polyethylene glycol (approx. 5000-200,000 mol. weight) with at least one SH, OH or NH₂ group, and cytostatic compds. (e.g. doxorubicin) derivatized through maleimide or N-hydroxysuccinimide ester-compds. Preparation of compds. and conjugates is included.

IC ICM A61K047-48

CC 1-6 (Pharmacology)

Section cross-reference(s): 27

ST antineoplastic cytotoxic agent **conjugate** transferrin **albumin** polyethylene glycol prepn; PEG transferrin **albumin conjugate** antineoplastic cytotoxic agent prepn; maleimide deriv cytotoxic compd **conjugate albumin** transferrin PEG prepn; hydroxysuccinimide deriv cytotoxic compd **conjugate albumin** transferrin PEG prepn

IT Amino group

Antitumor agents

Bladder, neoplasm

Cytotoxic agents

Drug delivery systems

Human

Lung, neoplasm

Mammary gland, neoplasm

Melanoma

Neoplasm

Prostate gland, neoplasm

Protective groups

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Polyoxyalkylenes, biological studies

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Mammary gland, neoplasm

(carcinoma; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT **Albumins, biological studies**

Transferrins

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**conjugates**, with derivatized cytotoxic agents; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Anthracyclines

Taxanes

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**conjugates**; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Carcinoma

(mammary; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Tumor antigens

RL: BSU (Biological study, unclassified); BIOL (Biological study) (monoclonal antibody to; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Antibodies and Immunoglobulins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (monoclonal, **conjugates**; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Albumins, reactions

RL: RCT (Reactant); RACT (Reactant or reagent) (serum, human; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Protective groups

(tert-butoxycarbonyl; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Substitution reaction

(thiolation; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT Alkaloids, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vinca, **conjugates**; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 59-30-3, Folic acid, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (antifolates, **conjugates**; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 25322-68-3DP, Polyethylene glycol, **conjugates** with derivatized cytotoxic agents 134874-49-0DP, **conjugates** with derivatized dichloroplatin

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 51-21-8D, 5-Fluorouracil, **conjugates** 55-86-7D, Nitrogen

mustard, derivs., **conjugates** 57-22-7D, Vincristine,

conjugates 59-05-2D, Methotrexate, **conjugates**

148-82-3D, Melphalan, **conjugates** 154-42-7D, Thioguanine,

conjugates 305-03-3D, Chlorambucil, **conjugates** 518-28-5D, Podophyllotoxin, derivs., **conjugates** 865-21-4D, Vinblastine, **conjugates** 1508-45-8D, Mitopodozide, **conjugates** 3094-09-5D, 5'-Deoxy-5-fluorouridine, **conjugates** 7440-06-4D, Platinum, complexes, **conjugates** 7689-03-4D, Camptothecin, **conjugates** 20830-81-3D, Daunorubicin, **conjugates** 23214-92-8D, Doxorubicin, **conjugates** 29767-20-2D, Teniposide, **conjugates** 33069-62-4D, Paclitaxel, **conjugates** 33419-42-0D, Etoposide, **conjugates** 53643-48-4D, Vindesine, **conjugates** 56420-45-2D, Epirubicin, **conjugates** 58957-92-9D, Idarubicin, **conjugates** 65271-80-9D, Mitoxantrone, **conjugates** 71486-22-1D, Vinorelbine, **conjugates** 91421-43-1D, 9-Aminocamptothecin, **conjugates** 114977-28-5D, Docetaxel, **conjugates** 123948-87-8D, Topotecan, **conjugates**
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 59-05-2, Methotrexate 76-05-1, Trifluoroacetic acid, reactions 108-31-6, Maleic acid anhydride, reactions 110-60-1, 1,4-Diaminobutane 111-41-1 148-82-3, Melphalan 154-42-7, Thioguanine 305-03-3, Chlorambucil 645-36-3, Aminoacetaldehyde diethyl acetal 865-21-4, Vinblastine 870-46-2, tert-Butylcarbazate 1071-93-8, Adipic acid dihydrazide 1137-41-3, p-Aminobenzophenone 1197-55-3, p-Aminophenylacetic acid 1508-45-8, Mitopodozide 1679-64-7, Terephthalic acid monomethyl ester 3094-09-5, 5'-Deoxy-5-fluorouridine 6066-82-6, N-Hydroxysuccinimide 6539-14-6 10025-99-7 16466-61-8 **20830-81-3**, Daunorubicin 23214-92-8, Doxorubicin 23214-92-8D, Doxorubicin, **conjugates** with transferrin and with **albumin** 24424-99-5, Di-tert-butyl dicarbonate **25316-40-9**, Doxorubicin hydrochloride 29767-20-2, Teniposide 33069-62-4, Paclitaxel 33419-42-0, Etoposide 53643-48-4, Vindesine 56420-45-2, Epirubicin 58957-92-9, Idarubicin 65271-80-9, Mitoxantrone 68865-60-1 68865-60-1D, **conjugates** with derivatized 5-fluorouracil 71486-22-1, Vinorelbine 91421-43-1, 9-Aminocamptothecin 95695-43-5 114977-28-5, Docetaxel 123948-87-8, Topotecan 134874-49-0 204200-63-5 795299-36-4 795299-42-2
 RL: RCT (Reactant); RACT (Reactant or reagent)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 46206-74-0P 91574-45-7P 92944-71-3P 188530-71-4P 188985-00-4P 188985-05-9P 188985-10-6P 188985-11-7P 200283-08-5P 200283-11-0P 200283-13-2P 204200-70-4P 204200-78-2P 204200-80-6P 216959-99-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 29305-46-2P 188944-35-6P 188985-04-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 541-59-3D, Maleimide, derivs. 6066-82-6D, N-Hydroxysuccinimide, esters, derivs.

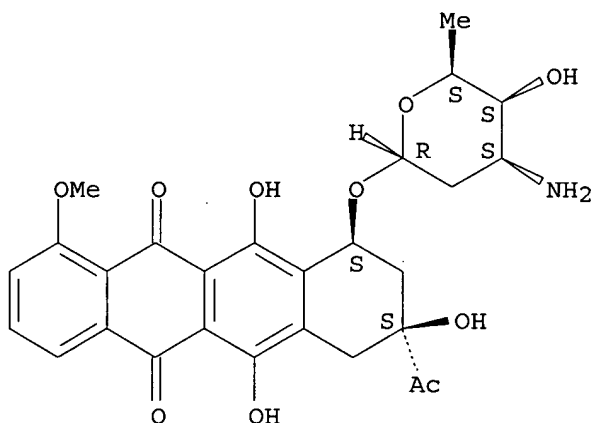
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)

IT 120-73-0, Purine

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (purine antagonists, **conjugates**; antineoplastic cytotoxic

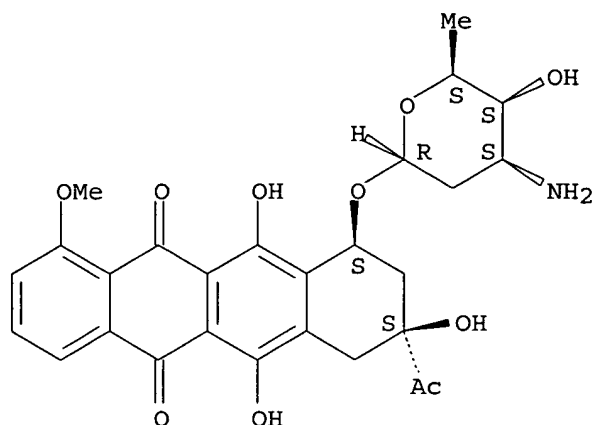
- agent **conjugates** with transferrin, **albumin** and polyethylene glycol)
- IT 289-95-2, Pyrimidine
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (pyrimidine antagonists, **conjugates**; antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)
- IT 20830-81-3D, Daunorubicin, **conjugates**
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)
- RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- IT 20830-81-3, Daunorubicin 25316-40-9, Doxorubicin hydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent) (antineoplastic cytotoxic agent **conjugates** with transferrin, **albumin** and polyethylene glycol)
- RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxohexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

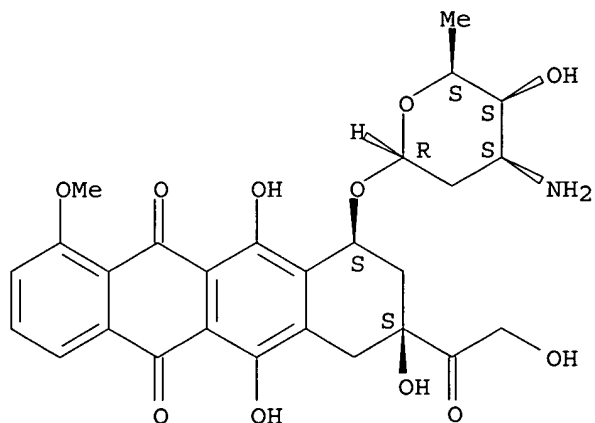
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 58 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:180735 HCAPLUS

DOCUMENT NUMBER: 128:252982

TITLE: **Oligopeptide**-cytotoxic agent

conjugates useful in the treatment of prostate cancer and benign prostatic hypertrophy

INVENTOR(S): Feng, Dong-Mei; Garsky, Victor M.; Jones, Raymond E.; Oliff, Allen I.; Wai, Jenny M.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA; Feng, Dong-Mei; Garsky, Victor M.; Jones, Raymond E.; Oliff, Allen I.; Wai, Jenny M.

SOURCE: PCT Int. Appl., 138 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9810651	A1	19980319	WO 1997-US16087	19970910 <--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2265476	AA	19980319	CA 1997-2265476	19970910 <--
AU 9744123	A1	19980402	AU 1997-44123	19970910 <--
AU 715632	B2	20000203		
EP 926955	A1	19990707	EP 1997-942423	19970910 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2001501601	T2	20010206	JP 1998-513857	19970910 <--
US 6391305	B1	20020521	US 1999-254892	19990628 <--
PRIORITY APPLN. INFO.:			US 1996-26015P	P 19960912 <--
			GB 1996-24170	A 19961119 <--
			WO 1997-US16087	W 19970910 <--

OTHER SOURCE(S): MARPAT 128:252982

ED Entered STN: 27 Mar 1998

AB Chemical conjugates are disclosed which comprise **oligopeptides**, having amino acid sequences that are selectively proteolytically cleaved by free prostate specific antigen (PSA), hydrophilic **oligopeptide** blocking groups, and known cytotoxic agents. Such conjugates are useful in the treatment of prostatic cancer and benign prostatic hypertrophy (BPH).

IC ICM A01N037-18

ICS A61K038-00; A61K038-28; A61K038-16

CC 1-6 (Pharmacology)

Section cross-reference(s): 34, 63

ST **oligopeptide** cytotoxic agent **conjugate** prepn; prostate cancer **oligopeptide** cytotoxic agent **conjugate**; benign prostatic hypertrophy **oligopeptide** cytotoxic **conjugate**

IT Prostate gland

(benign hyperplasia; **oligopeptide**-cytotoxic agent **conjugates** for treatment of prostate cancer and benign prostatic hypertrophy)

IT **Nucleosides**, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cytotoxic, **oligopeptide conjugates**; **oligopeptide**-cytotoxic agent **conjugates** for treatment of prostate cancer and benign prostatic hypertrophy)

IT Prostate gland

(neoplasm, inhibitors; **oligopeptide**-cytotoxic agent **conjugates** for treatment of prostate cancer and benign prostatic hypertrophy)

IT Prostate-specific antigen

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(**oligopeptide** cleavage by; **oligopeptide**-cytotoxic agent **conjugates** for treatment of prostate cancer and benign

- prostatic hypertrophy)
- IT Cytotoxic agents
(**oligopeptide conjugates; oligopeptide**
-cytotoxic agent **conjugates** for treatment of prostate cancer
and benign prostatic hypertrophy)
- IT Anthracyclines
Enediynes
Taxanes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(**oligopeptide conjugates; oligopeptide**
-cytotoxic agent **conjugates** for treatment of prostate cancer
and benign prostatic hypertrophy)
- IT **Drug delivery systems**
(**oligopeptide**-cytotoxic agent **conjugates** for
treatment of prostate cancer and benign prostatic hypertrophy)
- IT **Peptides, biological studies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(**oligopeptides**, cytotoxic agent **conjugates**;
oligopeptide-cytotoxic agent **conjugates** for treatment
of prostate cancer and benign prostatic hypertrophy)
- IT Antitumor agents
(prostate gland; **oligopeptide**-cytotoxic agent
conjugates for treatment of prostate cancer and benign
prostatic hypertrophy)
- IT Alkaloids, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(vinca, **oligopeptide conjugates**;
oligopeptide-cytotoxic agent **conjugates** for treatment
of prostate cancer and benign prostatic hypertrophy)
- IT 91-18-9D, Pteridine, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(**oligopeptide conjugates; oligopeptide**
-cytotoxic agent **conjugates** for treatment of prostate cancer
and benign prostatic hypertrophy)
- IT 205184-06-1P 205185-99-5P 205186-01-2P 205186-04-5P 205186-06-7P
205186-09-0P 205186-11-4P 205186-13-6P 205186-17-0P 205186-21-6P
205186-24-9P 205186-27-2P 205186-32-9P 205186-36-3P 205186-40-9P
205186-42-1P 205186-44-3P 205186-46-5P 205186-48-7P 205186-50-1P
205186-52-3P 205186-54-5P 205186-56-7P 205186-57-8P 205186-58-9P
205186-60-3P 205186-62-5P 205186-65-8P 205186-67-0P 205186-69-2P
205186-71-6P 205186-73-8P 205186-74-9P 205186-75-0P 205186-76-1P
205186-77-2P 205186-79-4P 205186-81-8P 205186-83-0P 205186-84-1P
205186-86-3P 205186-88-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation)
(**oligopeptide**-cytotoxic agent **conjugates** for
treatment of prostate cancer and benign prostatic hypertrophy)
- IT 205184-64-1P 205184-67-4P 205184-71-0P 205184-74-3P 205184-81-2P
205184-84-5P 205184-87-8P 205184-90-3P 205184-93-6P 205184-96-9P
205184-99-2P 205185-02-0P 205185-07-5P 205185-10-0P 205185-15-5P
205185-19-9P 205185-23-5P 205185-26-8P 205185-30-4P 205185-33-7P

205185-35-9P 205185-41-7P 205185-44-0P 205185-48-4P 205185-54-2P
 205185-59-7P 205185-64-4P 205185-67-7P 205185-70-2P 205185-73-5P
 205185-76-8P 205185-80-4P 205185-83-7P 205186-91-0P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oligopeptide-cytotoxic agent conjugates for treatment of prostate cancer and benign prostatic hypertrophy)

IT 50-07-7D, Mitomycin C, oligopeptide conjugates
 50-18-0D, Cyclophosphamide, oligopeptide conjugates
 50-44-2D, 6-Mercaptopurine, oligopeptide conjugates
 51-21-8D, 5-Fluorouracil, oligopeptide conjugates
 54-62-6D, Aminopterin, oligopeptide conjugates
 57-22-7D, Vincristine, oligopeptide conjugates
 59-05-2D, Methotrexate, oligopeptide conjugates
 147-94-4D, Methotrexate, oligopeptide conjugates
 148-82-3D, Melphalan, oligopeptide conjugates
 518-28-5D, Podophyllotoxin, oligopeptide conjugates
 528-74-5D, Dichloromethotrexate, oligopeptide conjugates
 801-52-5D, Porfiromycin, oligopeptide conjugates
 865-21-4D, Vinblastine, oligopeptide conjugates
 1404-00-8D, Mitomycin, oligopeptide conjugates
 2410-93-7D, Methopterin, oligopeptide conjugates
 2998-57-4D, Estramustine, oligopeptide conjugates
 11056-06-7D, Bleomycin, oligopeptide conjugates
 15228-71-4D, Leurosine, oligopeptide conjugates
 15663-27-1D, Cisplatin, oligopeptide conjugates
 20830-81-3D, Daunorubicin, oligopeptide conjugates
 23214-92-8D, Doxorubicin, oligopeptide conjugates
 23360-92-1D, Leurosine, oligopeptide conjugates
 33069-62-4D, Taxol, oligopeptide conjugates
 33419-42-0D, Etoposide, oligopeptide conjugates
 39472-31-6D, Carminomycin, oligopeptide conjugates
 53643-48-4D, Vindesine, oligopeptide conjugates
 117091-64-2D, Etoposide phosphate, oligopeptide conjugates
 174639-59-9D, cytotoxic agent conjugates
 174639-60-2D, cytotoxic agent conjugates
 174639-73-7D, cytotoxic agent conjugates 174640-33-6D, cytotoxic agent conjugates
 174640-46-1D, cytotoxic agent conjugates
 174640-51-8D, cytotoxic agent conjugates
 174640-61-0D, cytotoxic agent conjugates 174640-62-1D, cytotoxic agent conjugates
 174640-63-2D, cytotoxic agent conjugates
 174640-65-4D, cytotoxic agent conjugates
 174640-66-5D, cytotoxic agent conjugates 174640-67-6D, cytotoxic agent conjugates
 174640-72-3D, cytotoxic agent conjugates
 174640-73-4D, cytotoxic agent conjugates
 174640-74-5D, cytotoxic agent conjugates 174640-75-6D, cytotoxic agent conjugates
 174640-76-7D, cytotoxic agent conjugates
 174640-77-8D, cytotoxic agent conjugates
 189508-78-9D, cytotoxic agent conjugates 189509-31-7D, cytotoxic agent conjugates
 189509-37-3D, cytotoxic agent conjugates
 189510-08-5D, cytotoxic agent conjugates
 189510-10-9D, cytotoxic agent conjugates 205183-77-3D, cytotoxic agent conjugates
 205183-79-5D, cytotoxic agent conjugates
 205183-81-9D, cytotoxic agent conjugates
 205183-83-1D, cytotoxic agent conjugates 205183-95-5D, cytotoxic agent conjugates
 205183-97-7D, cytotoxic agent conjugates
 205183-99-9D, cytotoxic agent conjugates
 205184-02-7D, cytotoxic agent conjugates 205184-06-1D, cytotoxic agent conjugates
 205184-08-3D, cytotoxic agent conjugates

conjugates 205184-10-7D, cytotoxic agent **conjugates**
 205184-12-9D, cytotoxic agent **conjugates** 205184-14-1D,
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conjugates 205184-22-1D, cytotoxic agent **conjugates**
 205184-26-5D, cytotoxic agent **conjugates** 205184-29-8D,
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 205184-36-7D, cytotoxic agent **conjugates** 205184-39-0D,
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conjugates 205184-45-8D, cytotoxic agent **conjugates**
 205184-50-5D, cytotoxic agent **conjugates** 205184-52-7D,
 cytotoxic agent **conjugates** 205184-57-2D, cytotoxic agent
conjugates 205184-59-4D, cytotoxic agent **conjugates**
 205184-61-8D, cytotoxic agent **conjugates** 205184-64-1D, optical
 isomers 205184-67-4D, optical isomers 205184-71-0D, optical isomers
 205184-74-3D, optical isomers 205184-77-6 205184-77-6D, optical
 isomers 205184-81-2D, optical isomers 205184-84-5D, optical isomers
 205184-87-8D, optical isomers 205184-90-3D, optical isomers
 205184-93-6D, optical isomers 205184-96-9D, optical isomers
 205184-99-2D, optical isomers 205185-02-0D, optical isomers
 205185-07-5D, optical isomers 205185-10-0D, optical isomers
 205185-15-5D, optical isomers 205185-19-9D, optical isomers
 205185-23-5D, optical isomers 205185-26-8D, optical isomers
 205185-30-4D, optical isomers 205185-33-7D, optical isomers
 205185-35-9D, optical isomers 205185-41-7D, optical isomers
 205185-44-0D, optical isomers 205185-48-4D, optical isomers
 205185-54-2D, optical isomers 205185-59-7D, optical isomers
 205185-64-4D, optical isomers 205185-67-7D, optical isomers
 205185-70-2D, optical isomers 205185-73-5D, optical isomers
 205185-76-8D, optical isomers 205185-80-4D, optical isomers
 205185-83-7D, optical isomers 205185-86-0 205185-86-0D, optical
 isomers 205185-88-2 205185-88-2D, optical isomers 205185-89-3
 205185-89-3D, optical isomers 205185-93-9 205185-93-9D, optical
 isomers 205185-96-2 205185-96-2D, optical isomers

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)

(oligopeptide-cytotoxic agent **conjugates** for
 treatment of prostate cancer and benign prostatic hypertrophy)

IT 205186-89-6DP, resin-bound 205186-90-9DP, resin-bound
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation and reaction; oligopeptide-cytotoxic agent
conjugates for treatment of prostate cancer and benign
 prostatic hypertrophy)

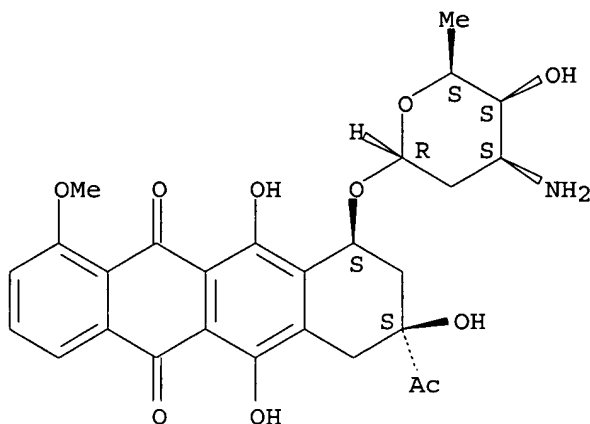
IT 23214-92-8, Doxorubicin
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction; oligopeptide-cytotoxic agent **conjugates**
 for treatment of prostate cancer and benign prostatic hypertrophy)

IT 20830-81-3D, Daunorubicin, **oligopeptide**
conjugates
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)

(oligopeptide-cytotoxic agent **conjugates** for
 treatment of prostate cancer and benign prostatic hypertrophy)

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 59 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:545386 HCAPLUS
 DOCUMENT NUMBER: 129:188362
 TITLE: Mutant BR96 antibodies reactive with human carcinomas
 INVENTOR(S): Yelton, Dale; Glaser, Scott; Huse, William; Rosok, Mae Joanne
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA
 SOURCE: U.S., 71 pp., Cont.-in-part of U. S. Ser. No. 285,936.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5792456	A	19980811	US 1995-487860	19950607 <--
US 5728821	A	19980317	US 1994-285936	19940804 <--
CA 2155397	AA	19960205	CA 1995-2155397	19950803 <--
AU 9528349	A1	19960215	AU 1995-28349	19950803 <--
EP 699756	A1	19960306	EP 1995-305444	19950803 <--
EP 699756	B1	20040317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 262038	E	20040415	AT 1995-305444	19950803 <--
JP 08191692	A2	19960730	JP 1995-230629	19950804 <--
PRIORITY APPLN. INFO.:			US 1994-285936	A2 19940804 <--
			US 1995-487860	A 19950607 <--

OTHER SOURCE(S): MARPAT 129:188362

ED Entered STN: 27 Aug 1998

AB The authors disclose the preparation and improved reactivity of **polypeptide** muteins of the BR96 antibody directed to the Lewis Y determinant. Muteins were constructed using codon mutagenesis of heavy chain CDRs. Application of mutein immunoconjugates in cancer diagnosis and treatment is discussed.

IC ICM A61K039-395

ICS C12P021-08

INCL 424133100

CC 15-3 (Immunochemistry)
 Section cross-reference(s): 1, 3, 63

IT Antitumor agents
 Cytotoxic agents
 (BR96 antibody mutein **conjugates**; improved Lewis Y
 determinant binding by CDR muteins of BR96 antibody in relation to)

IT Glucocorticoids
 Ricins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**conjugates**, with BR96 antibody muteins; improved Lewis Y
 determinant binding by CDR muteins of BR96 antibody in relation to)

IT **Antibodies**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**conjugates**, with **cytotoxic** agents; improved Lewis
 Y determinant binding by CDR muteins of BR96 antibody in relation to)

IT **Drug delivery systems**
 (immunoconjugates; improved Lewis Y determinant binding by CDR muteins
 of BR96 antibody in relation to)

IT DNA sequences
Protein sequences
 (of mutein of BR96 antibody exhibiting improved reactivity for Lewis Y
 determinant)

IT 50-76-0D, Actinomycin D, immunoconjugates with BR96 antibody muteins
 57-22-7D, Vincristine, immunoconjugates with BR96 antibody muteins
 64-86-8D, Colchicine, immunoconjugates with BR96 antibody muteins
 846-48-0D, 1-Dehydrotestosterone, immunoconjugates with BR96 antibody
 muteins 865-21-4D, Vinblastine, immunoconjugates with BR96 antibody
 muteins 1239-45-8D, Ethidium bromide, immunoconjugates with BR96
 antibody muteins 1404-00-8D, Mitomycin, immunoconjugates with BR96
 antibody muteins **20830-81-3D**, Daunorubicin,
immunoconjugates with BR96 antibody muteins 23214-92-8D,
 Doxorubicin, immunoconjugates with BR96 antibody muteins 29767-20-2D,
 Teniposide, immunoconjugates with BR96 antibody muteins 33069-62-4D,
 Taxol, immunoconjugates with BR96 antibody muteins 33419-42-0D,
 immunoconjugates with BR96 antibody muteins 146912-45-0D,
 immunoconjugates with BR96 antibody muteins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (improved Lewis Y determinant binding by CDR muteins of BR96 antibody
 in relation to)

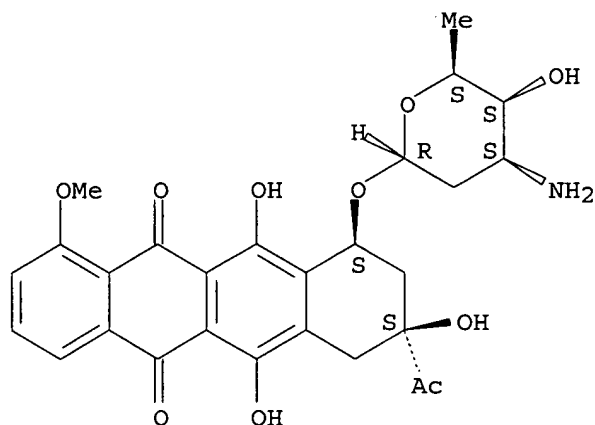
IT 211625-66-0
 RL: PRP (Properties)
 (**nucleotide** sequence; improved Lewis Y determinant binding by
 CDR muteins of BR96 antibody in relation to)

IT **20830-81-3D**, Daunorubicin, **immunoconjugates** with BR96
 antibody muteins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (improved Lewis Y determinant binding by CDR muteins of BR96 antibody
 in relation to)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 141 THERE ARE 141 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L242 ANSWER 60 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:542360 HCAPLUS

DOCUMENT NUMBER: 127:210373

TITLE: Implants for modulation of cell proliferation and wound healing

INVENTOR(S): Kelleher, Peter J.

PATENT ASSIGNEE(S): Houston Biotechnology Incorporated, USA; Kelleher, Peter J.

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9728833	A1	19970814	WO 1997-US2257	19970212 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9719576	A1	19970828	AU 1997-19576	19970212 <--
PRIORITY APPLN. INFO.:			US 1996-600381	A2 19960212 <--
			WO 1997-US2257	W 19970212 <--

ED Entered STN: 25 Aug 1997

AB Implants which are capable of sustained release of a cell proliferation-modulating agent, together with methods for their preparation and use, are provided. The proliferation-modulating agent is associated either covalently or noncovalently with the implant material, which is generally a biol. inert, physiol. compatible polymer. Following implantation in a tissue, the drug is released such that the drug is substantially retained within the implant region in the tissue. The device can be used to inhibit cellular proliferation around the implant. It can be provided as

a sterile kit, preferably in a form suitable for immediate use. Thus, a nylon-daunomycin implant was provided for prevention of secondary cataracts in a rabbit model resulting from proliferation of residual lens epithelial cells on the posterior lens capsule.

- IC ICM A61L027-00
- ICS A61L031-00; A61K009-00; A61K047-48
- CC 63-6 (Pharmaceuticals)
- IT Nutrients
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (anti-, **conjugates**, with polymers; implants for modulation of cell proliferation and wound healing)
- IT Polymers, biological studies
 - Polysaccharides, biological studies**
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (**conjugates**, with drugs; implants for modulation of cell proliferation and wound healing)
- IT Cytotoxic agents
 - (**conjugates**, with polymers; implants for modulation of cell proliferation and wound healing)
- IT Anthracyclines
 - Ricins
 - Toxins
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (**conjugates**, with polymers; implants for modulation of cell proliferation and wound healing)
- IT Dialdehydes
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (drug **conjugation** to polymer with; implants for modulation of cell proliferation and wound healing)
- IT Coupling agents
 - (for drug **conjugation** with polymer; implants for modulation of cell proliferation and wound healing)
- IT Amide group
 - Cataract
 - Drug delivery systems**
 - Epithelium
 - Fibroblast
 - Glaucoma (disease)
 - Wound healing promoters
 - (implants for modulation of cell proliferation and wound healing)
- IT **Drug delivery systems**
 - Drug delivery systems**
 - (implants, sustained-release; implants for modulation of cell proliferation and wound healing)
- IT **Drug delivery systems**
 - (injections; implants for modulation of cell proliferation and wound healing)
- IT **Drug delivery systems**
 - (ophthalmic, implants; implants for modulation of cell proliferation and wound healing)
- IT 1071-93-8
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (daunomycin **conjugation** to polymer with; implants for modulation of cell proliferation and wound healing)

IT 111-30-8, Pentanedial 37317-99-0 83314-03-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(drug **conjugation** to polymer with; implants for modulation of
cell proliferation and wound healing)

IT 50-07-7D, Mitomycin C, **conjugates** with polymers 51-21-8D,
5-Fluorouracil, **conjugates** with polymers **9004-32-4D**,
conjugates with drugs **9004-61-9D**, Hyaluronic acid,
conjugates with drugs **9004-65-3D**,
Hydroxypropylmethylcellulose, **conjugates** with drugs
9005-49-6D, Heparin, **conjugates** with drugs, biological
studies **20830-81-3D**, Daunomycin, **conjugates** with
polymers 23214-92-8D, Doxorubicin, **conjugates** with polymers
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(implants for modulation of cell proliferation and wound healing)

IT **9004-32-4D**, **conjugates** with drugs **9004-61-9D**,
Hyaluronic acid, **conjugates** with drugs **9004-65-3D**,
Hydroxypropylmethylcellulose, **conjugates** with drugs
9005-49-6D, Heparin, **conjugates** with drugs, biological
studies **20830-81-3D**, Daunomycin, **conjugates** with
polymers
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(implants for modulation of cell proliferation and wound healing)

RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

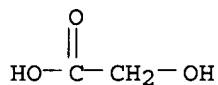
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-65-3 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1

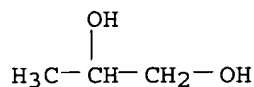
CMF C H4 O

H₃C-OH

CM 3

CRN 57-55-6

CMF C3 H8 O2



RN 9005-49-6 HCAPLUS

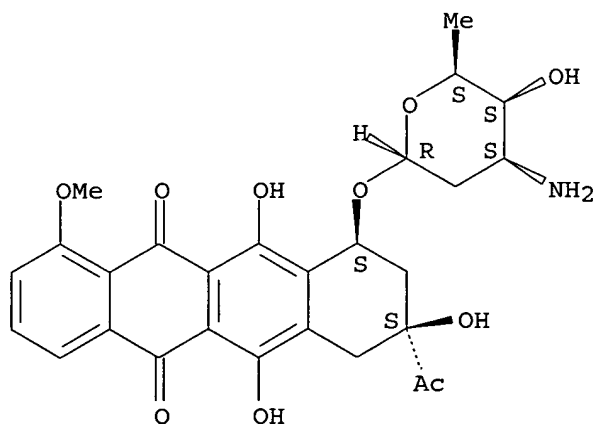
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 61 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:701459 HCAPLUS

DOCUMENT NUMBER: 128:26913

TITLE: **Conjugation**-stabilized therapeutic agent compositions, delivery and diagnostic formulations comprising same, and method of making and using the same

INVENTOR(S): Ekwuribe, Nnochiri Nkem
 PATENT ASSIGNEE(S): Protein Delivery, Inc., USA
 SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 5,438,040.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5681811	A	19971028	US 1995-509422	19950731 <--
US 5359030	A	19941025	US 1993-59701	19930510 <--
US 5438040	A	19950801	US 1994-276890	19940719 <--
CA 2227891	AA	19970213	CA 1996-2227891	19960729 <--
WO 9704796	A1	19970213	WO 1996-US12425	19960729 <--
W: AU, CA, CN, IL, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9666409	A1	19970226	AU 1996-66409	19960729 <--
AU 698944	B2	19981112		
EP 841936	A1	19980520	EP 1996-926169	19960729 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1192690	A	19980909	CN 1996-196079	19960729 <--
JP 11511131	T2	19990928	JP 1996-507838	19960729 <--
US 6191105	B1	20010220	US 1997-958383	19971027 <--
US 2003229006	A1	20031211	US 2003-448524	20030530 <--
US 2003229010	A1	20031211	US 2003-448535	20030602 <--
US 2005181976	A1	20050818	US 2004-977849	20041029 <--
PRIORITY APPLN. INFO.:				
			US 1993-59701	A3 19930510 <--
			US 1994-276890	A2 19940719 <--
			US 1995-509422	A 19950731 <--
			WO 1996-US12425	W 19960729 <--
			US 1997-958383	A3 19971027 <--
			US 2000-614203	A1 20000712 <--
			US 2003-448524	A1 20030530

ED Entered STN: 07 Nov 1997

AB A stabilized conjugated therapeutic agent complex comprising a therapeutic agent conjugatively coupled to a polymer including lipophilic and hydrophilic moieties, wherein the therapeutic agent may for example be selected from the group consisting of insulin, calcitonin, ACTH, glucagon, somatostatin, somatotropin, somatomedin, parathyroid hormone, erythropoietin, hypothalamic releasing factors, prolactin, thyroid stimulating hormones, endorphins, enkephalins, vasopressin, non-naturally occurring opioids, superoxide dismutase, interferon, asparaginase, arginase, arginine deaminase, adenosine deaminase, RNase, trypsin, chymotrypsin, papain, Ara-A (Arabinofuranosyladenine), Acylguanosine, Nordeoxyguanosine, Azidothymidine, Dideoxyadenosine, Dideoxycytidine, Dideoxyinosine Floxuridine, 6-Mercaptopurine, Doxorubicin, Daunorubicin, or Idarubicin, Erythromycin, Vancomycin, oleandomycin, Ampicillin; Quinidine and Heparin. In a particular aspect, the invention comprises an insulin composition suitable for parenteral as well as non-parenteral administration, preferably oral or parenteral administration, comprising insulin covalently coupled with a polymer including (i) a linear polyalkylene glycol moiety and (ii) a lipophilic moiety, wherein the insulin, the linear polyalkylene glycol moiety and the lipophilic moiety are conformationally arranged in relation to one another such that the insulin in the composition has an enhanced in vivo resistance to enzymic degradation, relative to insulin alone. One, two, or three polymer constituents may be covalently attached to the therapeutic agent mol.,

with one polymer constituent being preferred. The conjugates of the invention are usefully employed in therapeutic as well as non-therapeutic, e.g., diagnostic, applications, and the therapeutic agent and polymer may be covalently coupled to one another, or alternatively may be associatively coupled to one another, e.g., by hydrogen bonding or other associative bonding relationship.

IC ICM A61K037-16

INCL 514008000

CC 63-6 (Pharmaceuticals)

ST drug polymer **conjugate** stabilized

IT Haptens

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with antibodies; **conjugation**
-stabilized therapeutic agent compns., delivery and diagnostic
formulations)

IT **Antibodies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with haptens; **conjugation**-stabilized
therapeutic agent compns., delivery and diagnostic formulations)

IT Antitumor agents

Drug delivery systems

(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Polyoxyalkylenes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Antiarrhythmics

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT **Antibodies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Anticoagulants

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Blood-coagulation factors

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Growth factors, animal

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Hormones, animal, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT Interferons

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT **Nucleosides**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

IT **Nucleotides**, biological studies

- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT Opioids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT **Peptides, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT **Proteins, general, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT Epitopes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(viral; **conjugation**-stabilized therapeutic agent compns.,
delivery and diagnostic formulations)
- IT 3344-77-2, 12-Bromo-1-dodecanol 7075-11-8 7693-46-1, p-Nitrophenyl
chloroformate 9005-66-7 25322-68-3 25512-65-6, Dihydropyran
26266-58-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT 9004-99-3P, Polyethylene glycol monostearate 88517-92-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT 9001-78-9DP, **conjugates** with polymers 9004-10-8DP, Insulin,
conjugates with polymers, biological studies 9004-95-9DP,
Polyoxyethylene cetyl ether, reaction products with Ara-CMP derivative
65139-86-8DP, **conjugates** with polymers 161756-38-3DP, reaction
products with insulin 161756-39-4DP, reaction products with insulin
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT 50-44-2, 6-Mercaptopurine 50-91-9, Floxuridine 56-54-2, Quinidine
69-53-4, Ampicillin 114-07-8, Erythromycin 118-00-3D, Guanosine, acyl
derivs., biological studies **1404-90-6**, Vancomycin 3922-90-5,
Oleandomycin 4097-22-7, Dideoxyadenosine 5536-17-4, Ara-A 7481-89-2,
Dideoxycytidine 9000-96-8, Arginase 9001-73-4, Papain 9001-99-4,
Ribonuclease 9002-07-7, Trypsin 9002-62-4, Prolactin, biological
studies 9002-64-6, Parathyroid hormone 9002-71-5, Thyroid stimulating
hormone 9002-72-6, Somatotropin 9004-07-3, Chymotrypsin
9005-49-6, Heparin, biological studies 9007-12-9, Calcitonin
9007-92-5, Glucagon, biological studies 9015-68-3, Asparaginase
9026-93-1, Adenosine deaminase 9027-98-9 9038-70-4, Somatomedin
9054-89-1, Superoxide dismutase 11000-17-2, Vasopressin 11096-26-7,
Erythropoietin **20830-81-3**, Daunorubicin 23214-92-8,
Doxorubicin 30516-87-1, Azidothymidine 51110-01-1, Somatostatin
58957-92-9, Idarubicin 60118-07-2, Endorphin 69655-05-6,
Dideoxyinosine 82410-32-0 139639-23-9, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugation**-stabilized therapeutic agent compns., delivery
and diagnostic formulations)
- IT **26266-58-0**
RL: RCT (Reactant); RACT (Reactant or reagent)

(conjugation-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

RN 26266-58-0 HCAPLUS

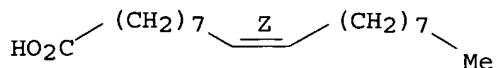
CN Sorbitan, tri-(9Z)-9-octadecenoate (9CI) (CA INDEX NAME)

CM 1

CRN 112-80-1

CMF C18 H34 O2

Double bond geometry as shown.

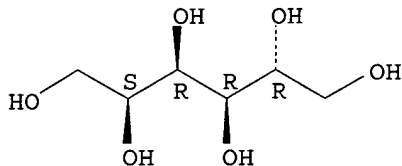


CM 2

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



IT 1404-90-6, Vancomycin 9005-49-6, Heparin, biological
studies 20830-81-3, Daunorubicin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

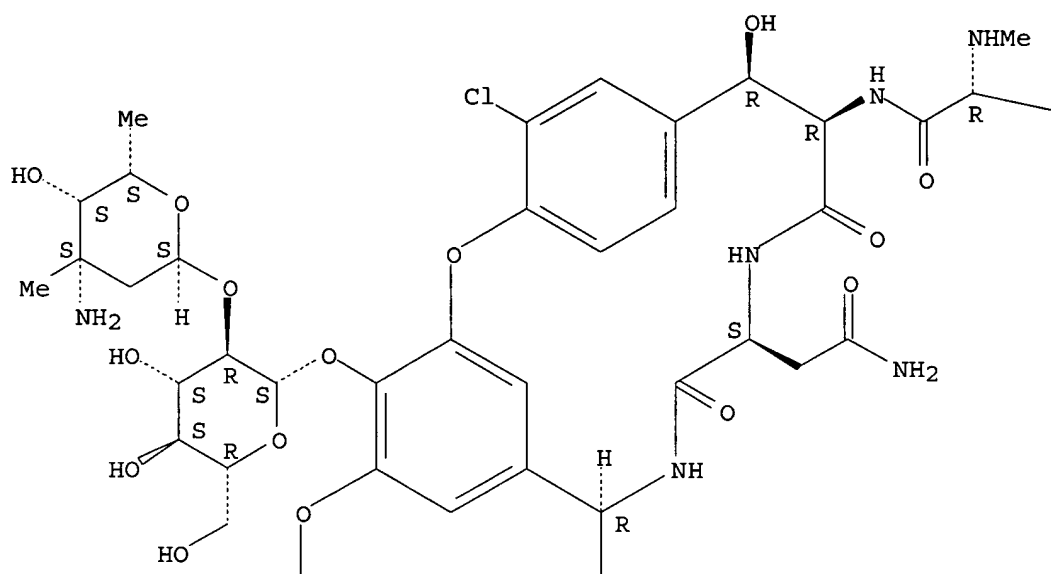
(conjugation-stabilized therapeutic agent compns., delivery
and diagnostic formulations)

RN 1404-90-6 HCAPLUS

CN Vancomycin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

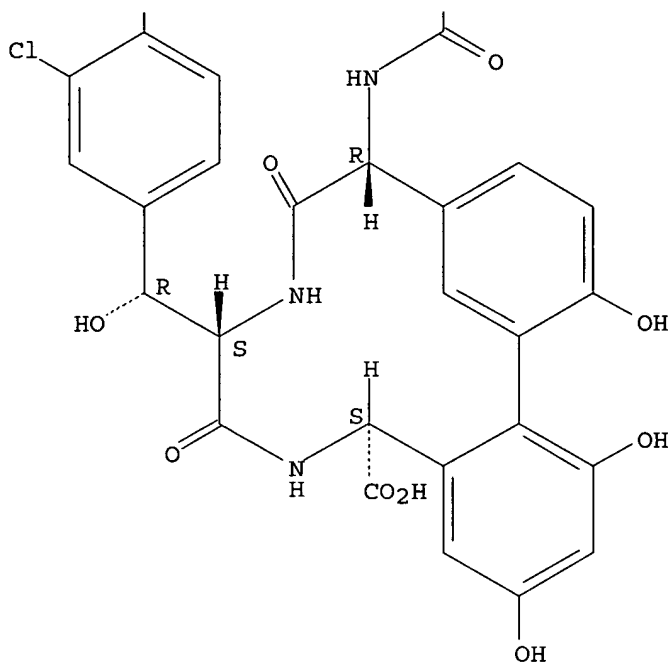
PAGE 1-A



PAGE 1-B

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PAGE 2-A

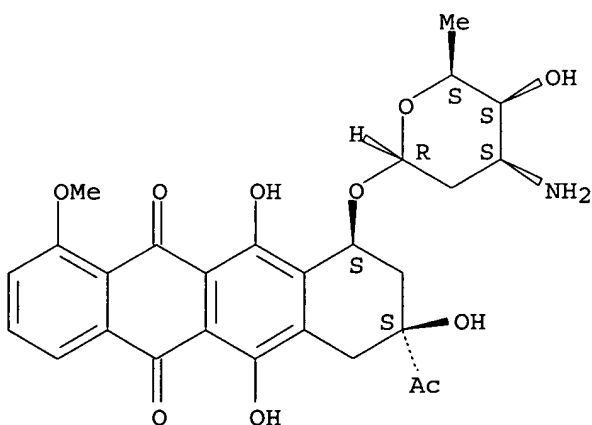


RN 9005-49-6 HCAPLUS
 CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 62 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:656434 HCAPLUS
 DOCUMENT NUMBER: 125:300690
 TITLE: Preparation of **conjugates** of biologically

active compounds with polypyrrolecarboxamidonaphthalene derivatives with increased bioavailability.

INVENTOR(S): Mongelli, Nicola; Biasoli, Giovanni; Lombardi Borgia, Andrea; Ciomei, Marina; Pesenti, Enrico; Angelucci, Francesco

PATENT ASSIGNEE(S): Pharmacia S.P.A., Italy

SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9626950	A1	19960906	WO 1996-EP528	19960208 <--
W: AM, AU, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, AZ, BY, KG, KZ, RU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2189358	AA	19960906	CA 1996-2189358	19960208 <--
AU 9648698	A1	19960918	AU 1996-48698	19960208 <--
AU 696470	B2	19980910		
EP 758339	A1	19970219	EP 1996-904024	19960208 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
CN 1148391	A	19970423	CN 1996-190152	19960208 <--
JP 10504319	T2	19980428	JP 1996-525980	19960208 <--
ZA 9601636	A	19960906	ZA 1996-1636	19960229 <--
FI 9604331	A	19961101	FI 1996-4331	19961028 <--
NO 9604610	A	19961031	NO 1996-4610	19961031 <--
PRIORITY APPLN. INFO.:			GB 1995-4065	A 19950301 <--
			WO 1996-EP528	W 19960208 <--

OTHER SOURCE(S): MARPAT 125:300690

ED Entered STN: 07 Nov 1996

AB Title compds. (I; R = acidic group; m = 1-3; n = 0-3; A = enzymically hydrolyzable spacer; X = biol. active compound), were prepared Thus, 2'-(β -alanyl)taxol, 4-dimethylaminopyridine, and disulfonate (II; Q = N-imidazolyl) were stirred 7 h in DMF to give II (Q = β -Ala-2'-taxol) (FCE 28284). An infusion formulation containing the latter is given.

IC ICM C07H015-252

ICS C07K005-06; C07K005-08; C07K005-10; C07K007-06; C07D207-34; C07D405-12; C07D405-14; C07D491-22; A61K031-40; A61K031-57; A61K031-70

CC 26-1 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 30, 31, 32, 33, 34, 63

ST drug polypyrrolecarboxamidonaphthalene **conjugate** prepn increased bioavailability; prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn increased bioavailability; taxol prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn; daunorubicin prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn; camptothecin prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn; hydrocortisone prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn; tallimustine prodrug polypyrrolecarboxamidonaphthalene **conjugate** prepn

IT Amino acids, preparation

Peptides, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(spacer units; preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

IT **Pharmaceutical dosage forms**

(prodrugs, preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

IT 182691-77-6P 182692-06-4P 182692-07-5P 182692-09-7P 182692-10-0P
 182692-11-1P 182692-12-2P 182692-13-3P 182692-14-4P 182692-15-5P
 182692-16-6P 182692-17-7P 182692-18-8P 182692-19-9P 182692-20-2P
 182692-23-5P 182692-25-7P 182692-27-9P 182692-28-0P 182692-29-1P
 182692-30-4P 182692-31-5P 182692-32-6P 182692-33-7P 182692-34-8P
 182692-35-9P 182692-37-1P 182692-38-2P 182692-39-3P 182692-40-6P
 182692-41-7P 182692-42-8P 182692-43-9P 182692-44-0P 182692-45-1P
 182692-46-2P 182692-47-3P 182692-48-4P 182692-49-5P 182692-50-8P
 182692-51-9P 182692-52-0P 182692-53-1P 182692-54-2P 182807-02-9P,
 FCE 28855 182807-03-0P, FCE 29378 182807-04-1P, FCE 29603
 182825-03-2P 182825-04-3P 182825-05-4P 182825-06-5P 182968-55-4P,
 FCE 28284 182968-56-5P, FCE 28403 182968-57-6P, FCE 28721
 182968-58-7P, FCE 28722 182968-59-8P, FCE 28745 182968-60-1P, FCE
 28746 182968-61-2P, FCE 28842 182968-62-3P, FCE 29142 182968-63-4P,
 FCE 28854 182968-66-7P, FCE 29604A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

IT 50-23-7, Hydrocortisone 108-30-5, Succinic anhydride, reactions
 123-78-4, D-Sphingosine 530-62-1, N,N'-Carbonyldiimidazole 544-63-8,
 Tetradecanoic acid, reactions 582-24-1, Benzoylcarbinol 2304-94-1
 7689-03-4, Camptothecin **20830-81-3**, Daunorubicin 114977-28-5,
 Taxotere 115308-98-0, Tallimustine 115465-81-1 117527-50-1
 153984-96-4 153984-98-6 168287-04-5 168287-06-7 182692-01-9
 182692-04-2 182692-05-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

IT 34227-72-0P 69205-89-6P 70099-10-4P 182691-79-8P 182691-81-2P
 182691-83-4P 182691-85-6P 182691-88-9P 182691-90-3P 182691-91-4P
 182691-92-5P 182691-93-6P 182691-94-7P 182691-95-8P, Tallimustine
 amidoxime 182691-96-9P 182691-97-0P 182691-98-1P 182691-99-2P
 182692-00-8P 182825-02-1P, 7-epi-Taxotere

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

IT **20830-81-3, Daunorubicin**

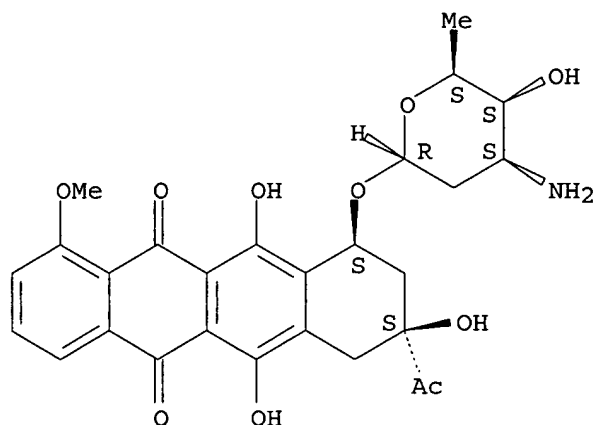
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of **conjugates** of biol. active compds. with polypyrrolecaboxamidonaphthalene derivs. with increased bioavailability)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 63 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:377089 HCAPLUS

DOCUMENT NUMBER: 125:49345

TITLE: Compounds, pharmaceutical composition and diagnostic system comprising same, and their use

INVENTOR(S): Trouet, Andre; Baurain, Roger

PATENT ASSIGNEE(S): La Region Wallonne, Belg.; Baurain, Roger

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605863	A1	19960229	WO 1995-BE76	19950821 <--
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
BE 1008580	A3	19960604	BE 1994-751	19940819 <--
BE 1008581	A3	19960604	BE 1994-752	19940819 <--
CA 2203622	AA	19960229	CA 1995-2203622	19950821 <--
AU 9532486	A1	19960314	AU 1995-32486	19950821 <--
AU 694546	B2	19980723		
EP 769967	A1	19970502	EP 1995-928905	19950821 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10508291	T2	19980818	JP 1995-507662	19950821 <--
NO 9700748	A	19970410	NO 1997-748	19970218 <--
US 5962216	A	19991005	US 1997-793910	19970401 <--
US 6342480	B1	20020129	US 1999-298330	19990423 <--
US 2002160943	A1	20021031	US 2001-12576	20011109 <--
US 7037898	B2	20060502		
PRIORITY APPLN. INFO.:				
			BE 1994-751	A 19940819 <--
			BE 1994-752	A 19940819 <--
			WO 1995-BE76	W 19950821 <--
			US 1997-793910	A1 19970401 <--
			US 1999-298330	A1 19990423 <--

OTHER SOURCE(S) : MARPAT 125:49345
ED Entered STN: 29 Jun 1996
AB The compds. W-Z-M of the invention comprise an element M, selected from markers and therapeutic agents having an intracellularly active site, linked to a ligand W-Z having an arm Z linked to a terminal group W. The bond between the arm Z of the ligand W-Z and the element M prevents the compound (W-Z-M) from penetrating within the cells and/or inhibits expression of the marker M. This bond is selectively cleaved by factors secreted by target cells so as to enable the marker M to be expressed in the target cells or the therapeutic agent M to penetrate therein; the terminal group W ensures that the compound (W-Z-M) is stable in serum and circulating blood. Data are presented for e.g. effect of β -Ala-L-Leu-L-Ala-L-Leu-daunorubicin conjugate with mammary carcinoma cells. Also described is characterization of protease(s) secreted into the extracellular medium and able to hydrolyze β -Ala-Leu-Ala-Leu-doxorubicin.
IC ICM A61K047-48
 ICS A61K049-00
CC 1-12 (Pharmacology)
 Section cross-reference(s): 7, 63
ST drug cleavable **conjugate** cell transport; marker cleavable **conjugate** cell transport; prodrug cleavable **conjugate** cell transport
IT Fluorescent substances
 (**conjugates**, with linker arm and terminal group; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Taxanes
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**conjugates**, with linker arm and terminal group; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Fibroblast
 (daunorubicin-peptide **conjugate** degradation in conditioned medium of tumor or normal cells)
IT Biological transport
 Diagnosis
 Inflammation inhibitors
 Neoplasm inhibitors
 Pharmaceutical dosage forms
 (drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Pharmaceuticals
 (linker arm-terminal group **conjugates**; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Bond
 (**peptide**; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Functional groups
 (succinyl, **conjugates** with linker arm and therapeutic agent or marker; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Macrophage
 Monocyte
 (target cell; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
IT Inflammation inhibitors
 (antirheumatics, drug **conjugates** and marker

- conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Intestine, neoplasm
(colon, carcinoma, daunorubicin-**peptide conjugate** degradation in conditioned medium of tumor or normal cells)
- IT Ligands
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugated**, with therapeutic agent or marker; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Anthracyclines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with linker arm and terminal group; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Amino acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with linker arm and therapeutic agent or marker; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT **Peptides, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with therapeutic agent or marker; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Liver, neoplasm
(hepatoma, daunorubicin-**peptide conjugate** degradation in conditioned medium of tumor or normal cells)
- IT Neoplasm inhibitors
(mammary gland carcinoma, drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Mammary gland
(neoplasm, carcinoma, daunorubicin-**peptide conjugate** degradation in conditioned medium of tumor or normal cells)
- IT Mammary gland
(neoplasm, carcinoma, inhibitors, drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT **Pharmaceutical dosage forms**
(prodrugs, drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT Alkaloids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vincaleukoblastine, **conjugates**, with linker arm and terminal group; drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 177953-51-4P 177953-52-5P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(drug **conjugates** and marker **conjugates** with cleavable bond, pharmaceutical compns., and diagnostic system)
- IT **20830-81-3, Daunorubicin**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(drug **conjugates** and marker **conjugates** with

- cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 23214-92-8, Doxorubicin
 RL: ADV (Adverse effect, including toxicity); BPR (Biological process);
 BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL
 (Biological study); FORM (Formation, nonpreparative); PROC (Process)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 70774-25-3P
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological
 process); BSU (Biological study, unclassified); MFM (Metabolic formation);
 RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); FORM
 (Formation, nonpreparative); PREP (Preparation); PROC (Process); RACT
 (Reactant or reagent)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 23828-86-6 70099-06-8 104759-76-4 177953-55-8 177953-56-9
 177953-57-0 177953-58-1 177953-59-2 177953-60-5 177953-61-6
 177953-62-7 177953-63-8 177953-64-9 177953-65-0 177953-66-1
 177953-67-2 177953-68-3 177953-69-4 177953-70-7 177953-71-8D,
 reaction products with coumarin 178036-04-9 178036-05-0 178036-06-1
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 61-90-5D, L-Leucine, reaction products with coumarin 91-64-5D, Coumarin,
 reaction products with leucine and β -alanylleucylalanylleucine
 74892-64-1 81245-04-7 177953-53-6 177953-54-7
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL
 (Biological study); FORM (Formation, nonpreparative)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 177953-50-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)
- IT 59-30-3D, Folic acid, derivs., **conjugates** with linker arm and
 terminal group 91-59-8D, β -Naphthylamine, **conjugates** with
 linker arm and terminal group 91-64-5D, Coumarin, **conjugates**
 with linker arm and terminal group 100-01-6D, p-Nitroaniline,
conjugates with linker arm and terminal group 107-95-9D,
 β -Alanine, **conjugates** with linker arm and therapeutic agent
 or marker 147-94-4D, ARA-C, **conjugates** with linker arm and
 terminal group 148-82-3D, Melphalan, **conjugates** with linker
 arm and terminal group 543-38-4D, L-Canavanine, **conjugates**
 with linker arm and terminal group 1404-00-8D, Mitomycin,
conjugates with linker arm and terminal group 2764-95-6D,
 4-Methoxy- β -naphthylamine, **conjugates** with linker arm and
 terminal group 3303-34-2D, carboxyl-terminal **conjugates** with
 linker arm and therapeutic agent or marker 5536-17-4D, ARA-A,
conjugates with linker arm and terminal group 6403-39-0D,
 carboxyl-terminal **conjugates** with linker arm and therapeutic
 agent or marker 7298-84-2D, carboxyl-terminal **conjugates** with
 linker arm and therapeutic agent or marker 7689-03-4D, Camptothecin,
conjugates with linker arm and terminal group 11056-06-7D,
 Bleomycin, **conjugates** with linker arm and terminal group
 20830-81-3D, Daunorubicin, **conjugates** with
 linker arm and terminal group 23214-92-8D, Doxorubicin,
conjugates with linker arm and terminal group 53518-15-3D,
conjugates with linker arm and terminal group 62669-70-9D,
 Rhodamine 123, **conjugates** with linker arm and terminal group

65271-80-9D, **conjugates** with linker arm and terminal group
 75607-67-9D, Fludarabine phosphate, **conjugates** with linker arm
 and terminal group 84676-47-1D, carboxyl-terminal **conjugates**
 with linker arm and therapeutic agent or marker 113440-58-7D,
 Calicheamicin, **conjugates** with linker arm and terminal group
 123948-87-8D, Topotecan, **conjugates** with linker arm and terminal
 group

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)

IT 81669-70-7P, Metalloprotease

RL: BPR (Biological process); BSU (Biological study, unclassified); PUR
 (Purification or recovery); BIOL (Biological study); PREP (Preparation);
 PROC (Process)

(protease secreted by human mammary carcinoma cells and hydrolyzing
 doxorubicin-**peptide conjugate**)

IT 20830-81-3, Daunorubicin

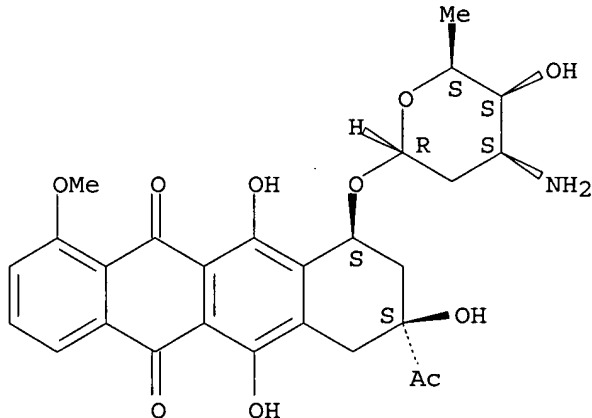
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); RCT
 (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant
 or reagent); USES (Uses)

(drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



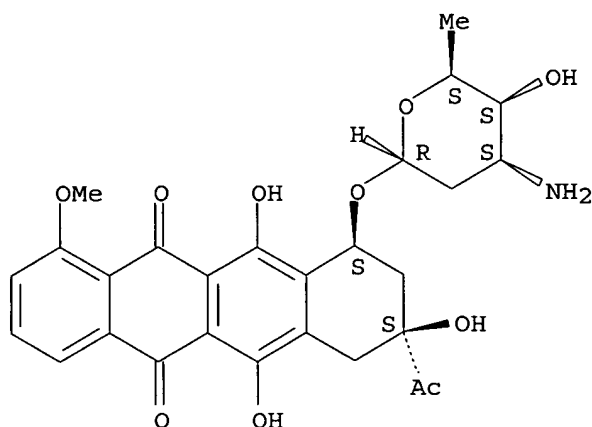
IT 20830-81-3D, Daunorubicin, **conjugates** with
 linker arm and terminal group

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (drug **conjugates** and marker **conjugates** with
 cleavable bond, pharmaceutical compns., and diagnostic system)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 64 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1997:67293 HCAPLUS
 DOCUMENT NUMBER: 126:79945
 TITLE: Polymeric cephalosporin prodrugs for administration
 with β -lactamase-antibody **conjugates** as
 antitumor drugs
 INVENTOR(S): Senter, Peter D.
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
 SOURCE: Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 745390	A2	19961204	EP 1996-108570	19960530 <--
EP 745390	A3	19990310		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CA 2177644	AA	19961201	CA 1996-2177644	19960529 <--
JP 08325270	A2	19961210	JP 1996-135153	19960529 <--
PRIORITY APPLN. INFO.:			US 1995-460152	A 19950531 <--

ED Entered STN: 30 Jan 1997

AB Antitumor drugs are delivered to tumor cells by the administration of a tumor-selective antibody- β -lactamase conjugate that binds to tumor cells, and the addnl. administration of a novel polymeric cephalosporin prodrug that is converted at the tumor site, in the presence of the antibody- β -lactamase, to an active cytotoxic drug for enhanced selective killing of tumor cells. The polymeric cephalosporin prodrug preferably contains a PEG or branched PEG moiety. Thus, 2 Fab' fragments of monoclonal antibody L6, which binds to antigens on the H2981 human lung adenocarcinoma cell line, were attached to each mol. of Enterobacter cloacae β -lactamase. A condensate of 7-aminoccephalosporin-doxorubicin with the N-hydroxysuccinimide ester of α -methoxy-PEG ω -(2-carboxyethyl) ether. This condensate was relatively nontoxic to H2981 cells in vitro (IC₅₀ = 80 μ M), but was considerably more toxic to cells which had been pretreated with the β -lactamase-antibody conjugate.

IC ICM A61K047-48

- CC 63-6 (Pharmaceuticals)
- IT **Peptides, biological studies**
Polyoxyalkylenes, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates** with cephalosporins and cytotoxic agents; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Polymers, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with cephalosporins and cytotoxic agents; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Antitumor agents
(**conjugates**, with cephalosporins and polymers; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Toxicity
(drug; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT **Drug delivery systems**
(immunoconjugates; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT **Antibodies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**monoclonal**, to neoplasm, **conjugates** with β -lactamase; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Chloramines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nitrogen mustards, **conjugates**, with cephalosporins and polymers; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Enzyme kinetics
(of β -lactamase; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Polyamides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(amino acids), **conjugates** with cephalosporins and cytotoxic agents; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT Alcohols, biological studies
Alcohols, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric, ethoxylated, **conjugates** with cephalosporins and cytotoxic agents; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT **Drug targeting**

- (polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT **Drug delivery systems**
(prodrugs; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT **Antibodies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to neoplasm, **conjugates** with β -lactamase; polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT 50-07-7D, Mitomycin C, **conjugates** with cephalosporins and polymers 50-76-0D, Dactinomycin, **conjugates** with cephalosporins and polymers 51-21-8D, 5-Fluorouracil, **conjugates** with cephalosporins and polymers 54-62-6D, Aminopterin, **conjugates** with cephalosporins and polymers 107-21-1D, 1,2-Ethanediol, polymers, **conjugates** with cephalosporins and cytotoxic agents, biological studies 1404-00-8D, Mitomycin, **conjugates** with cephalosporins and polymers 9004-54-0D, Dextran, **conjugates** with cephalosporins and cytotoxic agents, biological studies 9073-60-3D, β -Lactamase, **conjugates** with antibodies 11056-06-7D, Bleomycin, **conjugates** with cephalosporins and polymers 15663-27-1D, Cisplatin, **conjugates** with cephalosporins and polymers 20830-81-3D, Daunomycin, **conjugates** with cephalosporins and polymers 21442-01-3D, N-(2-Hydroxypropyl)methacrylamide, polymers, **conjugates** with cephalosporins and cytotoxic agents 23214-92-8D, **conjugates** with cephalosporins and polymers 25249-06-3D, **conjugates** with cephalosporins and cytotoxic agents 25300-64-5D, Styrene/maleic acid copolymer, **conjugates** with cephalosporins and cytotoxic agents 25322-68-3D, **conjugates** with cephalosporins and cytotoxic agents 26099-09-2D, Poly(maleic acid), **conjugates** with cephalosporins and cytotoxic agents 27878-59-7D, Poly(2-hydroxyethyl-L-glutamine), **conjugates** with cephalosporins and cytotoxic agents 29612-57-5D, 2-Hydroxyethyl methacrylate/vinylpyrrolidone copolymer, **conjugates** with cephalosporins and cytotoxic agents 29767-20-2D, Teniposide, **conjugates** with cephalosporins and polymers 33419-42-0D, Etoposide, **conjugates** with cephalosporins and polymers 39472-31-6D, Carminomycin, **conjugates** with cephalosporins and polymers 40704-75-4D, Poly[N-(2-hydroxypropyl)methacrylamide], **conjugates** with cephalosporins and cytotoxic agents 114797-28-3D, Esperamicin, **conjugates** with cephalosporins and polymers 133875-94-2D, β -D-Glucan carboxymethyl ether, **conjugates** with cephalosporins and cytotoxic agents 185303-51-9D, **conjugates** with cephalosporins and cytotoxic agents 185303-52-0 185303-53-1 185303-54-2 185303-55-3 185303-56-4 185303-57-5 185303-58-6 185303-59-7 185303-61-1 185303-63-3 185303-66-6 185505-37-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)
- IT 23214-92-8P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(polymeric cephalosporin prodrugs for administration with β -lactamase-antibody **conjugates** as antitumor drugs)

IT 6066-82-6, N-Hydroxysuccinimide 125220-94-2 142489-36-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymeric cephalosporin prodrugs for administration with
 β -lactamase-antibody **conjugates** as antitumor drugs)

IT 174569-25-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (polymeric cephalosporin prodrugs for administration with
 β -lactamase-antibody **conjugates** as antitumor drugs)

IT 11111-12-9D, Cephalosporin, **conjugates** with cytotoxic agents and
 polymers
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polymeric cephalosporin prodrugs for administration with
 β -lactamase-antibody **conjugates** as antitumor drugs)

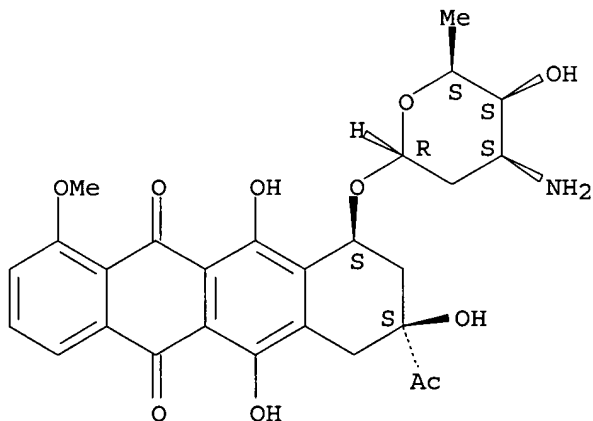
IT 9004-54-0D, **Dextran, conjugates** with
 cephalosporins and cytotoxic agents, biological studies
 20830-81-3D, Daunomycin, **conjugates** with cephalosporins
 and polymers
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (polymeric cephalosporin prodrugs for administration with
 β -lactamase-antibody **conjugates** as antitumor drugs)

RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
 hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)- (9CI) (CA INDEX NAME)

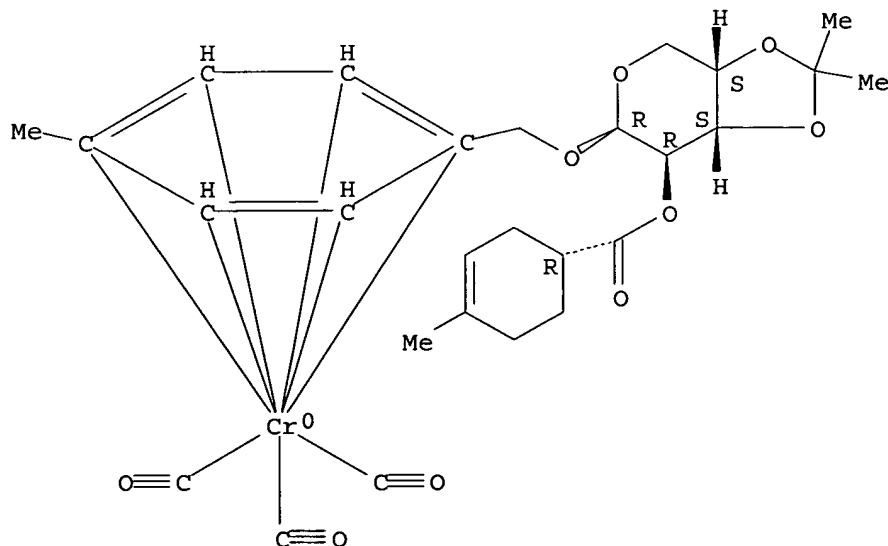
Absolute stereochemistry.



L242 ANSWER 65 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:333140 HCAPLUS
 DOCUMENT NUMBER: 125:87005
 TITLE: Sugarometallic chemistry: aglycon-chromium
 complex as chiral auxiliary in asymmetric
 Diels-Alder reaction
 AUTHOR(S): Shing, Tony K. M.; Chow, Hak-Fun; Chung, Ivan H. F.
 CORPORATE SOURCE: Dep. Chem., Chinese Univ. Hong Kong, Shatin, Hong Kong

SOURCE: Tetrahedron Letters (1996), 37(21), 3713-3716
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 125:87005
 ED Entered STN: 08 Jun 1996
 AB The diastereoselectivity of the Diels-Alder reaction of acryloylarabinopyranoside tricarboxylchromium I [R = η^6 -(p-methylbenzyl)Cr(CO)₃] with isoprene, butadiene, cyclopentadiene, and furan were studied, and the best selectivity was 95:5 (with isoprene), whereas the diastereoselectivity of the same reaction with the non-complexed chiral auxiliary-acrylate I (R = p-methylbenzyl) was only 78:22. The absolute configuration of the newly generated stereogenic center was R in each case.
 CC 33-3 (Carbohydrates)
 Section cross-reference(s): 68
 IT 178680-29-0P 178680-30-3P 178680-31-4P
 178680-32-5P 178680-33-6P 178680-34-7P
 178680-35-8P 178680-36-9P 178898-07-2P
 178898-08-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (stereoselective Diels Alder of acryloylarabinopyranoside tricarboxylchromium with alkenes)
 IT 178680-29-0P 178680-30-3P 178680-31-4P
 178680-32-5P 178680-33-6P 178680-34-7P
 178680-35-8P 178680-36-9P 178898-07-2P
 178898-08-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (stereoselective Diels Alder of acryloylarabinopyranoside tricarboxylchromium with alkenes)
 RN 178680-29-0 HCAPLUS
 CN Chromium, tricarboxyl[[[(1,2,3,4,5,6- η)-4-methylphenyl]methyl 3,4-O-(1-methylethylidene)- β -L-arabinopyranoside 4-methyl-3-cyclohexene-1-carboxylate]-, (R)- (9CI) (CA INDEX NAME)

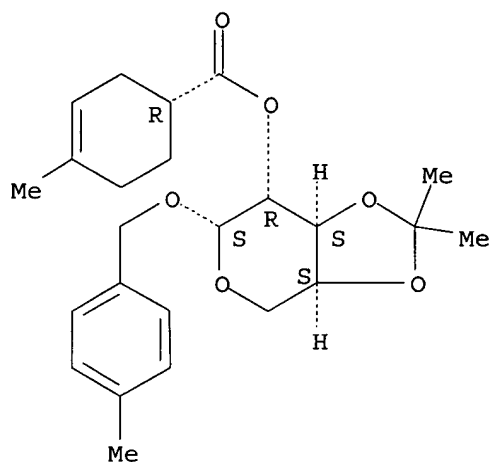
Absolute stereochemistry.



RN 178680-30-3 HCAPLUS

CN β -L-Arabinopyranoside, (4-methylphenyl)methyl 3,4-O-(1-methylethylidene)-, 4-methyl-3-cyclohexene-1-carboxylate, (R)- (9CI) (CA INDEX NAME)

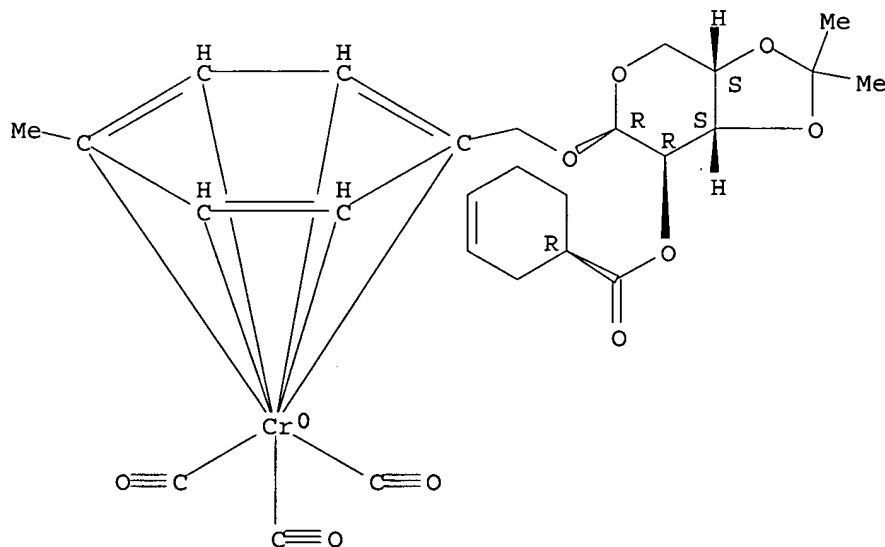
Absolute stereochemistry.



RN 178680-31-4 HCAPLUS

CN Chromium, tricarbonyl[[[(1,2,3,4,5,6- η)-4-methylphenyl]methyl 3,4-O-(1-methylethylidene)- β -L-arabinopyranoside 3-cyclohexene-1-carboxylate]-, (R)- (9CI) (CA INDEX NAME)

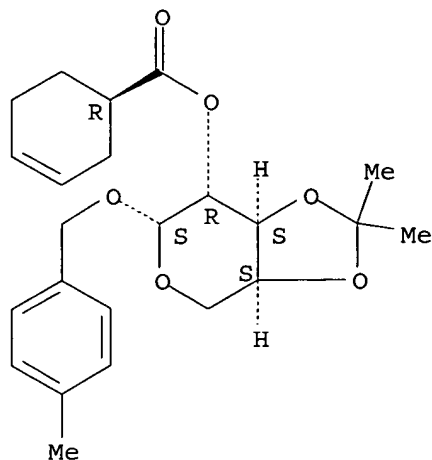
Absolute stereochemistry.



RN 178680-32-5 HCAPLUS

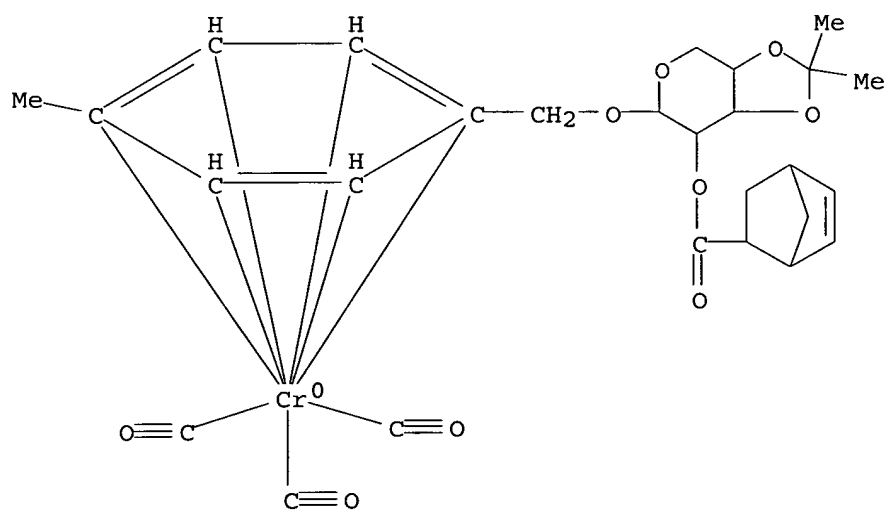
CN β -L-Arabinopyranoside, (4-methylphenyl)methyl 3,4-O-(1-methylethylidene)-, 3-cyclohexene-1-carboxylate, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 178680-33-6 HCAPLUS

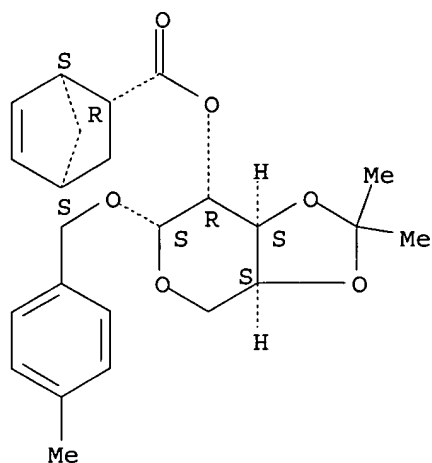
CN Chromium, tricarbonyl[[[(1,2,3,4,5,6-η)-4-methylphenyl]methyl 3,4-O-(1-methylethylidene)-β-L-arabinopyranoside bicyclo[2.2.1]hept-5-ene-2-carboxylate]-, (1S-exo)-(9CI) (CA INDEX NAME)



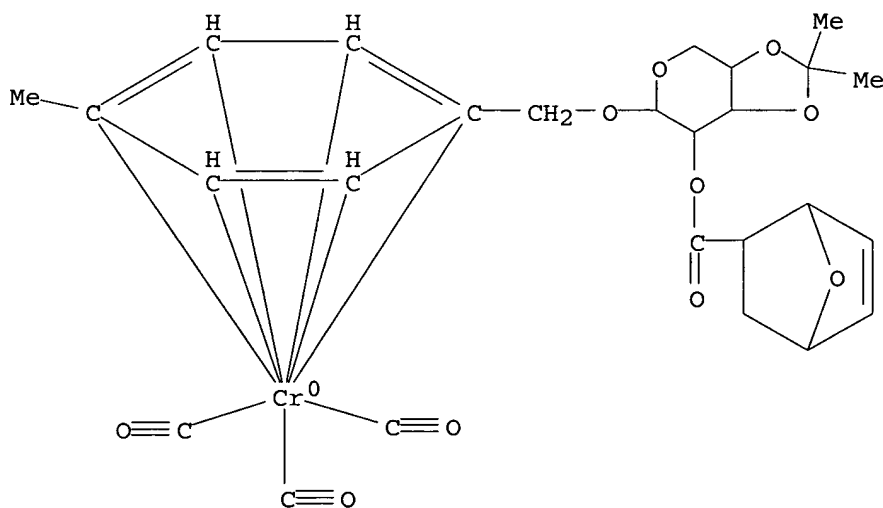
RN 178680-34-7 HCAPLUS

CN β-L-Arabinopyranoside, (4-methylphenyl)methyl 3,4-O-(1-methylethylidene)-, bicyclo[2.2.1]hept-5-ene-2-carboxylate, (1S-exo)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

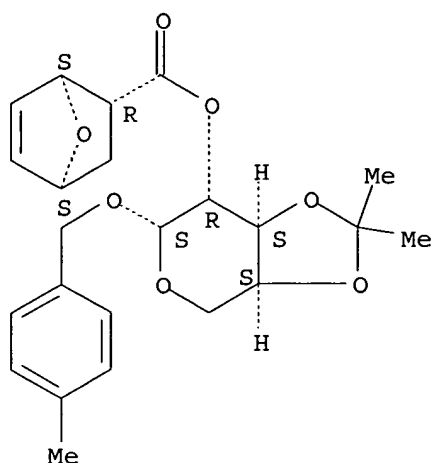


RN 178680-35-8 HCAPLUS
 CN Chromium, tricarbonyl[[[(1,2,3,4,5,6-η)-4-methylphenyl]methyl
 3,4-O-(1-methylethylidene)-β-L-arabinopyranoside 7-
 oxabicyclo[2.2.1]hept-5-ene-2-carboxylate]-, (1S-exo)- (9CI) (CA INDEX
 NAME)



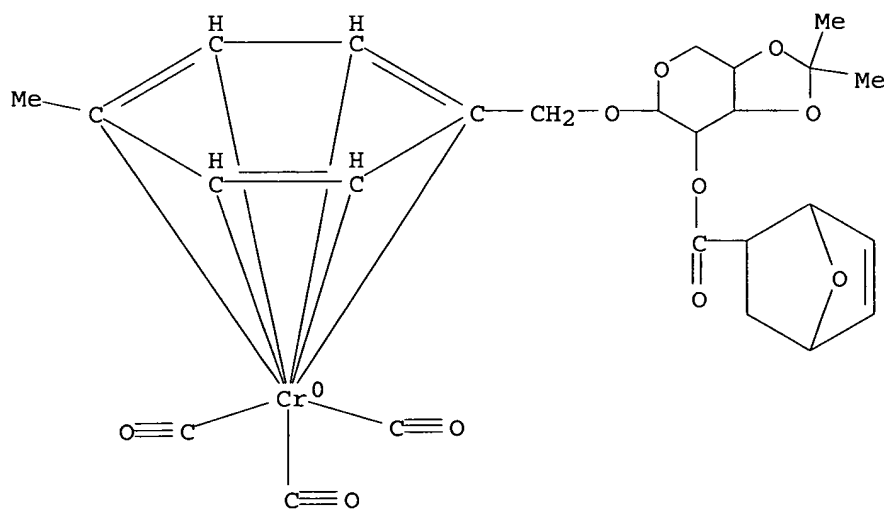
RN 178680-36-9 HCAPLUS
 CN β-L-Arabinopyranoside, (4-methylphenyl)methyl 3,4-O-(1-
 methylethylidene)-, 7-oxabicyclo[2.2.1]hept-5-ene-2-carboxylate, (1S-exo)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 178898-07-2 HCAPLUS

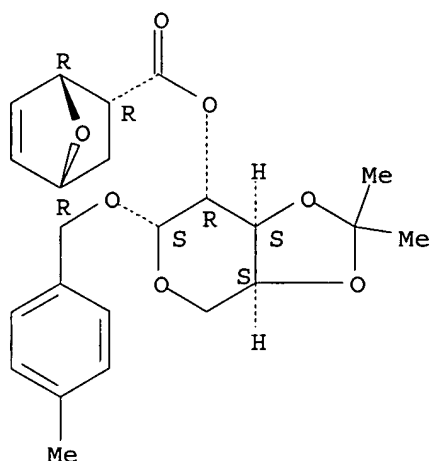
CN Chromium, tricarbonyl[[[(1,2,3,4,5,6-η)-4-methylphenyl]methyl
3,4-O-(1-methylethylidene)-β-D-arabinopyranoside 7-
oxabicyclo[2.2.1]hept-5-ene-2-carboxylate]-, (1R-endo)- (9CI) (CA INDEX
NAME)



RN 178898-08-3 HCAPLUS

CN β-L-Arabinopyranoside, (4-methylphenyl)methyl 3,4-O-(1-
methylethylidene)-, 7-oxabicyclo[2.2.1]hept-5-ene-2-carboxylate,
(1R-endo)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 66 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:463870 HCAPLUS

DOCUMENT NUMBER: 125:246990

TITLE: Regioselectivity and enantioselectivity in an antibody catalyzed hetero Diels-Alder reaction

AUTHOR(S): Meekel, Arthur A. P.; Resmihni, Marina; Pandit, Upendra K.

CORPORATE SOURCE: Laboratory of Organic Chemistry, Univ. of Amsterdam, Amsterdam, 1018 WS, Neth.

SOURCE: Bioorganic & Medicinal Chemistry (1996), 4(7), 1051-1057

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 06 Aug 1996

AB The **diels-alder cycloaddns.** of trans- and cis-piperylene (1 and 2) to 4-nitroso-N-propylbenzamide (3) were selected as target reactions for the development of catalytic antibodies with regioselective and enantioselective properties (Meekel, A. A. P. Ph.D. Thesis, University of Amsterdam, 1995). The bicyclic systems (I;R1,R2 given:H<H;Me,H;Me,Me) were designed as transition state analogs and employed for the immunization of mice and the generation of monoclonal antibodies. Three of the antibodies, each obtained from immunization with different haptens, were selected for further characterization of their catalytic activities. Among these, antibody 309-1G7, raised against the **protein conjugate** of I(R1=R2=Me), showed the best rate enhancement (kcat/Kuncat=2618) in the reaction of cis-piperylene (2) with nitroso **dienophile** 3. Data obtained from regioselectivity and enantio-selectivity analyses demonstrated that antibody 309-1G7 favors the formation of the targeted regioisomer (>95%), with an ee of 82%.

CC 22-5 (Physical Organic Chemistry)

Section cross-reference(s): 15

IT 162663-37-8P 162663-38-9P 162663-39-0P

162663-40-3P 181767-94-2P 181767-97-5P

RL: NUJ (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(regioselectivity and enantioselectivity in an antibody catalyzed hetero Diels-Alder reaction)

IT 181767-88-4P 181767-90-8P 181767-92-0P

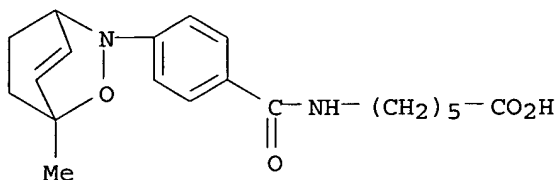
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(regioselectivity and enantioselectivity in an antibody catalyzed hetero Diels-Alder reaction)

IT 162663-37-8P 162663-38-9P 162663-39-0P
162663-40-3P 181767-94-2P 181767-97-5P

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(regioselectivity and enantioselectivity in an antibody catalyzed hetero Diels-Alder reaction)

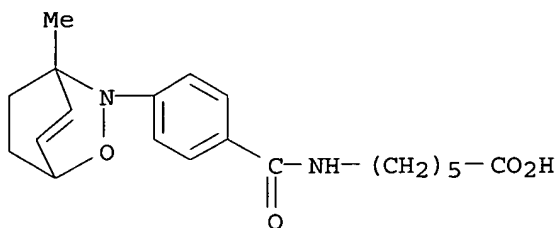
RN 162663-37-8 HCAPLUS

CN Hexanoic acid, 6-[[4-(1-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)benzoyl]amino]- (9CI) (CA INDEX NAME)



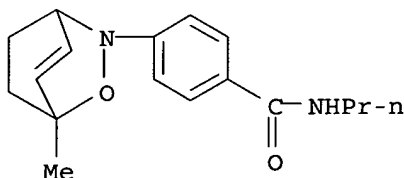
RN 162663-38-9 HCAPLUS

CN Hexanoic acid, 6-[[4-(4-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)benzoyl]amino]- (9CI) (CA INDEX NAME)



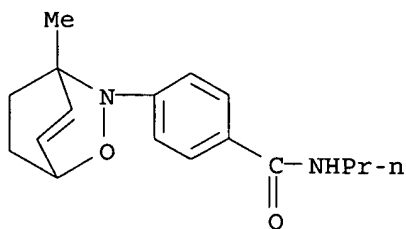
RN 162663-39-0 HCAPLUS

CN Benzamide, 4-(1-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-N-propyl- (9CI) (CA INDEX NAME)



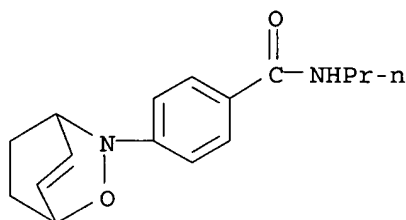
RN 162663-40-3 HCAPLUS

CN Benzamide, 4-(4-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-N-propyl- (9CI) (CA INDEX NAME)



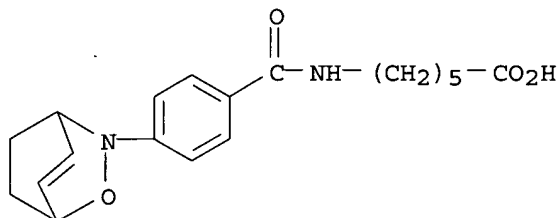
RN 181767-94-2 HCAPLUS

CN Benzamide, 4-(2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-N-propyl- (9CI) (CA INDEX NAME)



RN 181767-97-5 HCAPLUS

CN Hexanoic acid, 6-[[4-(2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)benzoyl]amino]- (9CI) (CA INDEX NAME)



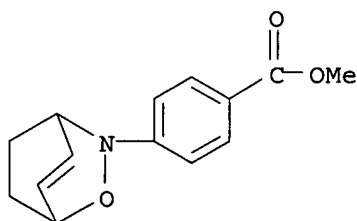
IT 181767-88-4P 181767-90-8P 181767-92-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

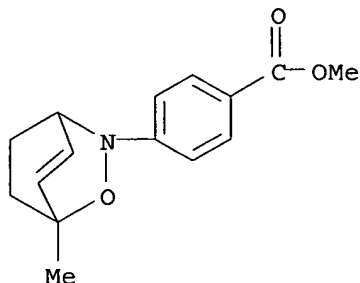
(regioselectivity and enantioselectivity in an antibody catalyzed hetero Diels-Alder reaction)

RN 181767-88-4 HCAPLUS

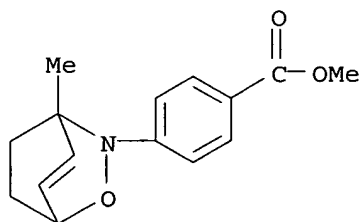
CN Benzoic acid, 4-(2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-, methyl ester (9CI) (CA INDEX NAME)



RN 181767-90-8 HCAPLUS
CN Benzoic acid, 4-(1-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-, methyl ester (9CI) (CA INDEX NAME)



RN 181767-92-0 HCAPLUS
CN Benzoic acid, 4-(4-methyl-2-oxa-3-azabicyclo[2.2.2]oct-5-en-3-yl)-, methyl ester (9CI) (CA INDEX NAME)



L242 ANSWER 67 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:541128 HCAPLUS
DOCUMENT NUMBER: 125:185138
TITLE: Improved Characteristics of a Human
 β -Glucuronidase-Antibody **Conjugate**
after Deglycosylation for Use in Antibody-Directed
Enzyme Prodrug Therapy
AUTHOR(S): Houba, Pieter H. J.; Boven, Epie; Haisma, Hidde J.
CORPORATE SOURCE: Department of Medical Oncology, Academic Hospital
Vrije Universiteit, Amsterdam, 1081 HV, Neth.
SOURCE: Bioconjugate Chemistry (1996), 7(5), 606-611
CODEN: BCCHE; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 11 Sep 1996
AB Antibody-directed enzyme prodrug therapy (ADEPT) aims at the specific
activation of relatively nontoxic prodrugs into active drugs at the tumor
site. One of the enzymes described to be useful in ADEPT is human
 β -glucuronidase (GUS), which is expected to have low immunogenicity
in patients. A major obstacle for the use of GUS, however, is its rapid
glycan-specific hepatic clearance. The **carbohydrates** of GUS
have been modified by subsequent treatment with NaIO₄ and NaBH₄ to improve
its retention in the circulation. The modification of GUS did not
decrease the enzyme activity. In vitro it was demonstrated that a
conjugate prepared with a pancarcinoma specific monoclonal antibody (mAb)

323/A3 and the modified enzyme (mGUS), when bound to tumor cells, was capable of complete prodrug activation. In vivo, the 323/A3-mGUS conjugate was cleared faster from the circulation of BALB/c mice ($t_{1/2}$ = 9 h) than mAb 323/A3 ($t_{1/2}$ = 32 h), but it was retained in the circulation much longer than an immunoconjugate prepared with native GUS ($t_{1/2}$ = 24 min). In nude mice bearing s.c. OVCAR-3 tumors the distribution of 323/A3-mGUS was qual. comparable to that of mAb 323/A3. The 323/A3-mGUS conjugate showed specific localization in the tumor but to a lesser extent than mAb 323/A3 (2.7% vs. 6.4% injected dose per g at 1 day after i.v. injection). A favorable tumor-to-blood ratio of >2 was observed for the conjugate at 7 days after administration, which is necessary for tumor-specific prodrug activation.

CC 1-6 (Pharmacology)

Section cross-reference(s): 7

ST prodrug activation beta glucuronidase **conjugate** antibody;
neoplasm inhibitor beta glucuronidase **conjugate** antibody

IT Neoplasm inhibitors

(carcinoma, improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT Therapeutics

(immuno-, ADEPT; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT **Antibodies**

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(**monoclonal**, pancarcinoma-specific 323/A3; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT **Antibodies**

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)

(**monoclonal**, **conjugates**, pancarcinoma-specific 323/A3, with modified β -glucuronidase; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT **Pharmaceutical dosage forms**

(prodrugs, improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT Glycosidation

(retro, improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT **20830-81-3, Daunorubicin**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(comparative activity; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT 9001-45-0DP, β -Glucuronidase, **conjugates** with monoclonal pancarcinoma-specific antibody 323/A3

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)

(improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT 9001-45-0, β -Glucuronidase

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT 64987-85-5 76931-93-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(linker; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT 181181-45-3

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(prodrug; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

IT 20830-81-3, Daunorubicin

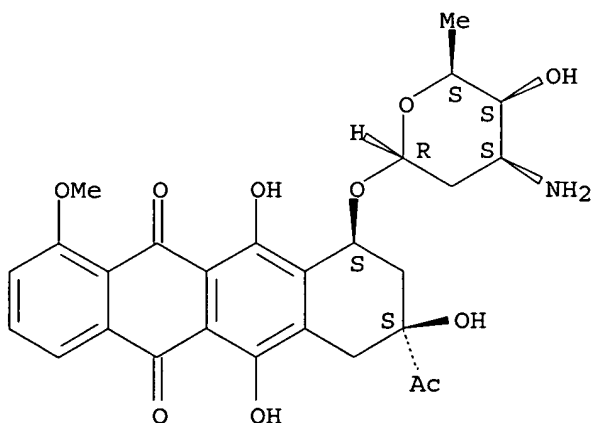
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(comparative activity; improved characteristics of human β -glucuronidase-antibody **conjugate** after deglycosylation for use in antibody-directed enzyme prodrug therapy (ADEPT) of carcinoma)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 68 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:435900 HCAPLUS

DOCUMENT NUMBER: 122:197024
 TITLE: Polymeric carriers for noncovalent drug
conjugation
 INVENTOR(S): Gustavson, Linda M.; Anderson, David C.; Morgan, Alton
 C., Jr.
 PATENT ASSIGNEE(S): Neorx Corp., USA
 SOURCE: PCT Int. Appl., 62 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9503064	A1	19950202	WO 1994-US7734	19940712 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5420105	A	19950530	US 1993-95515	19930726 <--
CA 2167574	AA	19950202	CA 1994-2167574	19940712 <--
EP 713395	A1	19960529	EP 1994-923410	19940712 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1993-95515	A 19930726 <--
			US 1988-248456	A2 19880923 <--
			WO 1994-US7734	W 19940712 <--

ED Entered STN: 23 Mar 1995

AB Polymeric carriers are **polypeptides** comprising ≥ 1 drug-binding domain that noncovalently binds a drug. A polymeric carrier may be attached to an antibody specific for desired target cells to form immunoconjugates that deliver a drug to the target cells in vivo. A polymeric carrier may be attached to a **proteinaceous** or nonproteinaceous ligand or anti-ligand to form a conjugate useful in pretargeting protocols to deliver a drug to target cells in vivo. The carriers are derived from drug-binding **proteins** and produced through **peptide** synthesis or recombinant DNA technol. Thus, chicken riboflavin-binding **protein**, which noncovalently binds adriamycin, was reduced with DTT in the presence of guanidine-HCl and digested with CNBr, and fragments which tightly bound adriamycin were isolated by gel filtration of the adriamycin complex and crosslinked e.g. via lysine residues with bis(sulfosuccinimidyl) suberate. The resulting polymer was attached to a targeting **protein**, e.g. an antibody, with a bifunctional crosslinker such as succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate.

IC ICM A61K037-02

ICS A61K039-44; C07K003-08

CC 63-6 (Pharmaceuticals)

ST **protein** binding drug **conjugation** targeting

IT Linking agents

(bifunctional; polymeric carriers for noncovalent drug
conjugation)

IT **Albumins, biological studies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (complexes with drugs; polymeric carriers for noncovalent drug
conjugation)

IT **Antibodies**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (conjugates with biotin; polymeric carriers for noncovalent
 drug **conjugation**)

IT Ligands

- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates** with drug complexes; polymeric carriers for noncovalent drug **conjugation**)
- IT Avidins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates** with drug-binding polymers; polymeric carriers for noncovalent drug **conjugation**)
- IT **Pharmaceutical dosage forms**
(**conjugates**; polymeric carriers for noncovalent drug **conjugation**)
- IT **Peptides, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug-binding; polymeric carriers for noncovalent drug **conjugation**)
- IT Solubilizers
(**peptides**; polymeric carriers for noncovalent drug **conjugation**)
- IT Neoplasm inhibitors
(polymeric carriers for noncovalent drug **conjugation**)
- IT Anthracyclines
Estrogen receptors
Estrogens
Orosomucoids
Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric carriers for noncovalent drug **conjugation**)
- IT Antibiotics
(anthracycline, polymeric carriers for noncovalent drug **conjugation**)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug-binding, polymeric carriers for noncovalent drug **conjugation**)
- IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(estrogen, polymeric carriers for noncovalent drug **conjugation**)
- IT **Pharmaceutical dosage forms**
(immunoconjugates, polymeric carriers for noncovalent drug **conjugation**)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(riboflavin-binding, polymeric carriers for noncovalent drug **conjugation**)
- IT **Proteins, specific or class**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(steroid-binding, polymeric carriers for noncovalent drug **conjugation**)
- IT 64987-85-5DP, Succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate, **conjugates** with streptavidin 72040-63-2DP, N-Hydroxysuccinimidyl biotinamidocaproate, antibody **conjugates** 93285-75-7DP, N-Iodoacetyl-N'-biotinylnhexylenediamine, antibody **conjugates**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymeric carriers for noncovalent drug **conjugation**)
- IT 50-07-7, Mitomycin C 50-44-2, 6-Mercaptopurine 58-85-5D, Biotin, **conjugates** with drug-binding polymers 59-05-2, Methotrexate 85-31-4, 6-Mercaptoguanosine 147-94-4, Ara-C 865-21-4, Vinblastine 9013-20-1D, Streptavidin, **conjugates** with drug-binding polymers 15663-27-1, Cisplatin 20830-81-3, Daunorubicin 23214-92-8,

Doxorubicin 65271-80-9, Mitoxantrone

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric carriers for noncovalent drug **conjugation**)

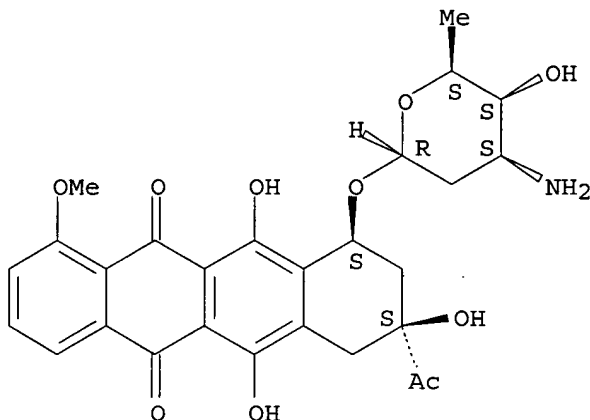
IT 20830-81-3, Daunorubicin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric carriers for noncovalent drug **conjugation**)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 69 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:756355 HCAPLUS

DOCUMENT NUMBER: 123:152894

TITLE: A process for the preparation of compounds useful for the treatment of diseases affecting macrophages

INVENTOR(S): Mukhopadhyay, Amitabha; Chaudhuri, Gautam; Arora, Sunil Jumar; Shegal, Shobha; Basu, Sandip Kumar

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India

SOURCE: Indian, 31 pp.

CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 172950	A	19940108	IN 1990-DE449	19900511 <--
IN 173006	A	19940122	IN 1988-DE368	19880428 <--
PRIORITY APPLN. INFO.:			IN 1988-DE368	A1 19880428 <--

ED Entered STN: 25 Aug 1995

AB A process for the preparation of a compound useful for the treatment of diseases

affecting macrophages comprises: (a) coupling the macromols., such as **polysaccharides** or **polynucleotides**, with a pharmaceutically active compound containing the functional groups of primary amino and/or carboxylic acid or containing a group which is capable of derivatization with the above said functional group, selected from methotrexate, daunomycin, rifamycin, and the like. The

polysaccharide employed is fucoidan or **dextran** sulfate, and the **polynucleotide** employed is polyinosinic or polyguanylic acid.

IC ICM C08L005-00
ICS C07H021-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST macromol drug coupling macrophage disease; **polynucleotide**
polysaccharide drug coupling macrophage disease
IT Macrophage
 Pharmaceutical dosage forms
 (drugs coupling to macromols. for treatment of diseases affecting macrophages)
IT Macromolecular compounds
 Polysaccharides, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (drugs **coupling** to macromols. for treatment of diseases affecting macrophages)
IT **Albumins, biological studies**
 RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (methylated, **conjugates**, with methotrexate; drug **conjugates** with macromols. for treatment of diseases affecting macrophages)
IT **Nucleotides, biological studies**
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (poly-, drugs coupling to macromols. for treatment of diseases affecting macrophages)
IT 59-05-2DP, Methotrexate, **conjugates** with methylated **albumin**
 RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (drug **conjugates** with macromols. for treatment of diseases affecting macrophages)
IT 59-05-2, Methotrexate 6998-60-3, Rifamycin **9042-14-2**, **Dextran** sulfate **9072-19-9**, Fucoidin **20830-81-3**, Daunomycin 25191-14-4, Polyguanylic acid 30918-54-8, Polyinosinic acid
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (drugs **coupling** to macromols. for treatment of diseases affecting macrophages)
IT **9042-14-2, Dextran** sulfate **9072-19-9**, Fucoidin **20830-81-3**, Daunomycin
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (drugs **coupling** to macromols. for treatment of diseases affecting macrophages)
RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (9CI) (CA INDEX NAME)

CM 1

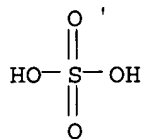
CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9

CMF H2 O4 S

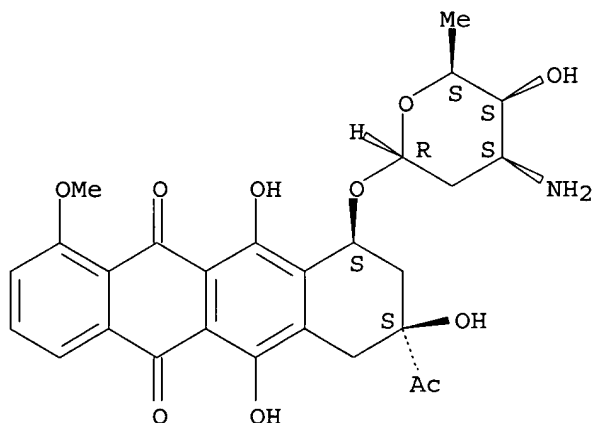


RN 9072-19-9 HCAPLUS
 CN Fucoidan (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 70 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:260097 HCAPLUS
 DOCUMENT NUMBER: 122:38862
 TITLE: Lysosomal enzyme-cleavable antitumor drug
conjugates
 INVENTOR(S): Firestone, Raymond Armand; Dubowchik, Gene Michael
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA
 SOURCE: Eur. Pat. Appl., 84 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 624377	A2	19941117	EP 1994-107501	19940513 <--
EP 624377	A3	19951115		
EP 624377	B1	20020123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 6214345	B1	20010410	US 1993-62366	19930514 <--

CA 2123363	AA	19941115	CA 1994-2123363	19940511 <--
CA 2123363	C	20050412		
AU 9463026	A1	19941117	AU 1994-63026	19940512 <--
AU 687795	B2	19980305		
FI 9402237	A	19941115	FI 1994-2237	19940513 <--
FI 116038	B1	20050915		
NO 9401819	A	19941115	NO 1994-1819	19940513 <--
NO 315162	B1	20030721		
HU 66485	A2	19941128	HU 1994-1507	19940513 <--
CN 1100426	A	19950322	CN 1994-107589	19940513 <--
CN 1117760	B	20030813		
AT 212236	E	20020215	AT 1994-107501	19940513 <--
PT 624377	T	20020731	PT 1994-107501	19940513 <--
ES 2170755	T3	20020816	ES 1994-107501	19940513 <--
JP 07070175	A2	19950314	JP 1994-101389	19940516 <--
JP 3645283	B2	20050511		

PRIORITY APPLN. INFO.: US 1993-62366 A 19930514 <--

OTHER SOURCE(S): CASREACT 122:38862; MARPAT 122:38862

ED Entered STN: 24 Dec 1994

AB An antitumor drug is targeted to the site of tumor cells in a warm-blooded animal by administration as a conjugate L[AYmZmXnWn]D (L = cell-specific ligand; A = acyl; Y, Z = amino acid; X, W = spacer; D = drug functionalized with amino, OH, SH, CO₂H, CHO, or ketone group for attachment to the spacer; m = 1-6; n = 0, 1), the **peptide** linker being cleavable by a lysosomal **proteinase** such as cathepsin B, C, or D to release the antitumor drug in pharmacol. active form selectively at the tumor site. These conjugates show less systemic toxicity than conjugates which rely on simple acid hydrolysis for drug release. X and W are self-immolating spacers which are spontaneously cleaved from the drug moiety after enzymic cleavage of the **peptide**. Thus, a monoclonal antibody to antigen BR96, which is expressed by L2987 human lung carcinoma, was coupled to maleimidocaproyl-Phe-Lys-p-aminobenzylcarbamoyleldoxorubicin (preparation given). This conjugate was highly cytotoxic against L2987 cells in vitro and in xenografts.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 34

ST lysosome enzyme cleavage antitumor drug **conjugate**

IT Antigens

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(BR64 and BR96, monoclonal antibodies to; lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT Ligands

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor drug **conjugates**; lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT Agglutinins and Lectins

Carbohydrates and Sugars, biological studies

Transferrins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ligands; lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT **Peptides, biological studies**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

- (Uses)
(**linkers**; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Lysosome
Neoplasm inhibitors
(lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Enzymes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Linking agents
(**peptides**; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Antigens
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(L6, monoclonal antibody to; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Animal growth regulators
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(blood platelet-derived growth factors, ligand; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Anthracyclines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**conjugates**, with ligands; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT **Pharmaceutical dosage forms**
(immunoconjugates, lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 2, ligand; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 6, ligand; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Lipoproteins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(low-d. apo-, ligands; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT **Antibodies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**monoclonal, conjugates**; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Animal growth regulators
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

- study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vaccinia virus growth factors, ligands; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT Animal growth regulators
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (α -transforming growth factors, ligand; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT 9002-76-0, Gastrin 9004-10-8, Insulin, biological studies 31362-50-2, Bombesin 62229-50-9, EGF 67763-96-6, Insulin-like growth factor I 67763-97-7, Insulin-like growth factor II 80043-53-4, Gastrin-releasing **peptide**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (ligand; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT 6456-72-0, L-Phenylalanyl-L-lysine 22677-62-9 159858-33-0
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (linker; lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT 9047-22-7, Cathepsin B
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
 (lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT 68181-17-9DP, SPDP, reaction products with doxorubicin derivative, antibody **conjugates** 72252-96-1DP, reaction products with doxorubicin derivative, antibody **conjugates** 159857-68-8DP, antibody **conjugates** 159858-32-9DP, reaction products with succinimidyl iodoacetamidobenzoate and SPDP, antibody **conjugates**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (lysosomal enzyme-cleavable antitumor drug **conjugates**)
- IT 50-07-7D, Mitomycin C, ligand **conjugates** 50-44-2D, 6-Mercaptopurine, ligand **conjugates** 54-62-6D, Aminopterin, ligand **conjugates** 57-22-7D, Vincristine, ligand **conjugates** 59-05-2D, Methotrexate, ligand **conjugates** 107-92-6D, Butyric acid, ligand **conjugates** 302-79-4D, Retinoic acid, ligand **conjugates** 865-21-4D, Vinblastine, ligand **conjugates** 1402-38-6D, Actinomycin, ligand **conjugates** 2270-40-8D, Anguidine, ligand **conjugates** 4055-39-4D, Mitomycin A, ligand **conjugates** 7689-03-4D, Camptothecin, ligand **conjugates** 9001-92-7, **Proteinase** 11056-06-7D, Bleomycin, ligand **conjugates** 13431-24-8D, ligand **conjugates** 20830-81-3D, Daunorubicin, ligand **conjugates** 23214-92-8D, Doxorubicin, ligand **conjugates** 33069-62-4D, Taxol, ligand **conjugates** 33419-42-0D, Etoposide, ligand **conjugates** 34079-22-6D, ligand **conjugates** 67995-68-0D, Tallysomycin, ligand **conjugates** 80790-68-7D, ligand **conjugates** 91421-43-1D, 9-Aminocamptothecin, ligand **conjugates** 114797-28-3D, Esperamicin, ligand **conjugates** 127792-84-1D, ligand **conjugates** 138967-27-8D, ligand **conjugates** 159857-59-7D, ligand **conjugates**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT 50-07-7, Mitomycin C 56-12-2, GABA, reactions 60-32-2 63-91-2,
 L-Phenylalanine, reactions 372-75-8, Citrulline 623-04-1,
 p-Aminobenzyl alcohol 673-06-3, D-Phenylalanine 1149-26-4 1161-13-3,
 N-(Benzyloxycarbonyl)-L-phenylalanine 5070-13-3, Bis(p-nitrophenyl)
 carbonate 7693-46-1, p-Nitrophenyl chloroformate 13734-28-6
 13734-34-4, N-(tert-Butyloxycarbonyl)-L-phenylalanine 14470-28-1,
 p-Anisylidiphenylmethyl chloride 24424-99-5, Di(tert-butyl) dicarbonate
25316-40-9, Doxorubicin hydrochloride 33069-62-4, Taxol
 35661-40-6 55750-63-5 68858-20-8, N-(9-Fluorenylmethoxycarbonyl)-L-
 valine 82911-69-1 84624-28-2 105047-45-8 115491-93-5, Diallyl
 dicarbonate 159858-34-1 159858-35-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT 3397-32-8P 3496-11-5P 3674-06-4P 6404-29-1P 51513-80-5P
 101214-43-1P 104669-73-0P 110637-59-7P 114359-52-3P 130878-68-1P
 152507-71-6P 159857-60-0P 159857-61-1P 159857-62-2P 159857-63-3P
 159857-64-4P 159857-65-5P 159857-66-6P 159857-67-7P 159857-69-9P
 159857-70-2P 159857-72-4P 159857-74-6P 159857-76-8P 159857-78-0P
 159857-79-1P 159857-80-4P 159857-81-5P 159857-82-6P 159857-83-7P
 159857-84-8P 159857-85-9P 159857-86-0P 159857-87-1P 159857-88-2P
 159857-89-3P 159857-90-6P 159857-91-7P 159857-92-8P 159857-93-9P
 159857-94-0P 159857-95-1P 159857-96-2P 159857-97-3P 159857-98-4P
 159857-99-5P 159858-00-1P 159858-01-2P 159858-02-3P 159858-03-4P
 159858-04-5P 159858-05-6P 159858-06-7P 159858-07-8P 159858-08-9P
 159858-09-0P 159858-10-3P 159858-11-4P 159858-12-5P 159858-13-6P
 159858-14-7P 159858-15-8P 159858-16-9P 159858-17-0P 159858-18-1P
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 159858-24-9P 159858-25-0P 159858-26-1P 159858-27-2P 159858-28-3P
 159858-29-4P 159858-30-7P 159858-31-8P 206133-56-4P 816422-58-9P
 816426-28-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)

IT 816422-70-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)IT **20830-81-3D**, Daunorubicin, ligand **conjugates**

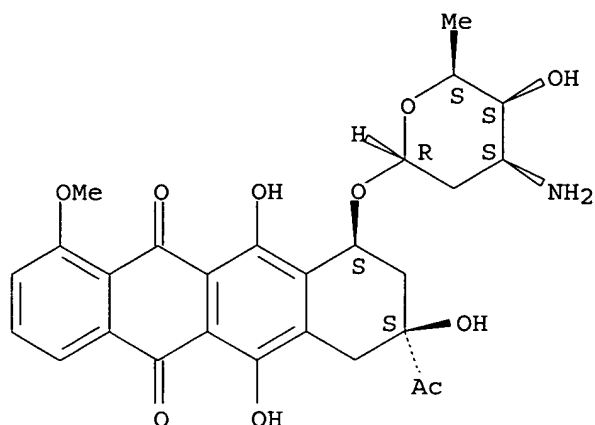
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
 (8S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 25316-40-9, Doxorubicin hydrochloride

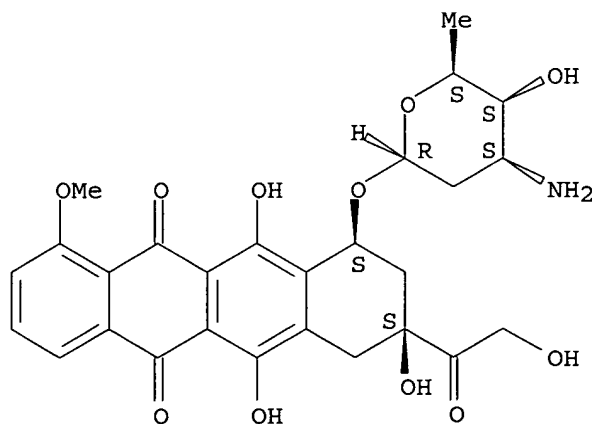
RL: RCT (Reactant); RACT (Reactant or reagent)

(lysosomal enzyme-cleavable antitumor drug **conjugates**)

RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 71 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:294200 HCAPLUS

DOCUMENT NUMBER: 122:64325

TITLE: Drug-delivery polymers and pharmaceutical compositions employing them

INVENTOR(S): Kopecek, Jindrich; Rejmanova, Pavla; Strohalm, Jiri; et al.

PATENT ASSIGNEE(S): Ustav Makromolekularni Chemie AVCR, Czech Rep.

SOURCE: Czech Rep., 50 pp.

CODEN: CZXXED

DOCUMENT TYPE: Patent
 LANGUAGE: Czech
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CZ 278551	B6	19940316	CZ 1985-97	19850104 <--
SK 278506	B6	19970806	SK 1985-97	19850104 <--
			CZ 1985-97	19850104 <--

PRIORITY APPLN. INFO.:

ED Entered STN: 14 Jan 1995

AB Drug-delivery polymers can be prepared which are composed 5.0-99.7 mol% of units derived from Me-C:CH₂-CO-NH-CH₂-CHOH-Me, 0.2-20.0 mol% of units having the structure Me-C:CH₂-CO-[NH-R-CO]-[B], where B is a bioactive mol. or drug, and 0.1-94.8 mol% of units having the structure Me-C:CH₂-CO-NH-[D] or Me-C:CH₂-CO-[D] or Me-C:CH₂-CO-[NH-R-CO]-D, where D is a determinant and [NH-R-CO] is a spacer residue derived from Leu, Phe, Gly-Gly, Gly-Leu-Gly, Gly-Val-Ala, Gly-Phe-Ala, Gly-Leu-Phe, Gly-Leu-Ala, Ala-Val-Ala, Gly-Phe-Leu-Gly, Gly-Phe-Phe-Leu, Gly-Leu-Leu-Gly, Gly-Phe-Tyr-Ala, Gly-Phe-Gly-Phe, Ala-Gly-Val-Phe, Gly-Phe-Phe-Gly, Gly-Phe-Leu-Gly-Phe, or Gly-Gly-Phe-Leu-Gly-Phe. Copolymers containing the above components can be single or double-chained and may contain as bioactive mols. antitumor drugs, antimicrobials, parasiticides, antiinflammatories, cardiovascular agents, or nervous system agents. The determinants may be monosaccharides, **disaccharides**, **oligosaccharides**, or O-methacryloylated **sugars**, which are preferably linked by an amide bond to an antibody such as IgG or anti-O antibody, or a **protein** such as transferrin, or a hormone such as MSH. Suitable determinants are galactose, galactosamine, glucosamine, mannosamine, and fucosylamine. The **peptide** spacers are degradable by lysosomal enzymes, releasing the pharmacol. active agents after the copolymer is taken up by target cells. Data are presented on the antileukemic activity of several claimed copolymers against leukemia L1210, and antitumor activity against melanoma and human hepatoma.

IC A61K047-30

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 35

IT **Antibodies**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(anti-O, polymer-daunomycin **conjugates**; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT **Transferrins**

RL: RCT (Reactant); RACT (Reactant or reagent)

(**conjugation**; preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT **Lysosome**

(enzymes; drug release from drug-delivery **peptide** copolymers degradation by)

IT **Enzymes**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(lysosomal; drug release from drug-delivery **peptide** copolymers degradation by)

IT **Transferrins**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polymer **conjugates**; preparation of drug-delivery polymers and

- pharmaceutical compns. employing them)
- IT **Immunoglobulins**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (G, **conjugation**; preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT **Immunoglobulins**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (G, polymer **conjugates**; preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT **Pharmaceutical dosage forms**
 (polymer-bound, preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT 24724-90-1, Fucosamine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**conjugation**; preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT 60616-82-2, Cathepsin L
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (drug release from drug-delivery **peptide** copolymers degradation by)
- IT 105055-03-6DP, **conjugates** with daunomycin and galactosamine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT 70-51-9DP, polymer **conjugates** 3476-50-4DP, Deacetylcolchicine, polymer **conjugate** 9002-79-3DP, Msh, polymer **conjugates** 14307-02-9DP, Mannosamine, polymer **conjugates** 20830-81-3DP, Daunomycin, polymer **conjugates** 21442-01-3DP, N-(2-Hydroxypropyl)methacrylamide, copolymers with methacryloylated **oligopeptides** and methacryloylated aminosaccharide-**oligopeptides** and methacryloylated p-nitrophenylpeptides 23214-92-8DP, Adriamycin, polymer **conjugates** 24724-90-1DP, Fucosamine, polymer **conjugates** 57950-81-9DP, **conjugates** with MSH 58970-76-6DP, Bestatin, polymer **conjugates** 68148-50-5DP, **conjugates** with IgG 79637-23-3DP, **conjugates** with puromycin and fucosylamine 79637-25-5DP, **conjugates** with bleomycin 105055-03-6DP, **conjugates** with daunomycin and galactosamine and N,N'-bis(phenylalanyl)hexamethylenediamine 105055-06-9DP, bleomycin **conjugates** 105055-08-1DP, **conjugates** with adriamycin and mannosamine 160203-40-7DP, daunomycin **conjugate** 160203-42-9DP, daunomycin **conjugate** 160203-43-0DP, **conjugates** with daunomycin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of drug-delivery polymers and pharmaceutical compns. employing them)
- IT 53-79-2, Puromycin 70-51-9 686-50-0, Leucylglycine 3303-55-7 3482-37-9, Trimethylcolchicinic acid 4530-20-5, BOC-glycine 4985-46-0, Tyrosinamide 7535-00-4, Galactosamine 9002-79-3, MSH 14307-02-9, Mannosamine 16522-41-1, p-Nitrophenyl methacrylate 20830-81-3, Daunomycin 23214-92-8, Adriamycin 32991-17-6 57950-79-5 58970-76-6, Bestatin 64325-18-4 73787-46-9 105055-05-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT 53-79-2DP, Puromycin, polymer **conjugate** 3476-50-4P,
Deacetylcolchicine 10065-72-2P, Alanine methyl ester 13734-41-3P
29486-28-0P, N-Methacryloylalanine 33857-88-4P 47477-04-3P,
Deacetylcolchicine 57950-81-9P 68148-50-5P 69936-04-5P
79637-23-3P 79637-24-4P 79637-25-5P 91147-51-2P 100424-71-3P
104845-47-8P 104845-57-0P 104845-59-2P 104845-60-5P 104845-65-0P
105055-06-9P 105055-08-1P 160203-42-9P 160203-43-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT 477-30-5D, Colcemid, copolymd. **peptide conjugates**
1465-26-5D, Sarcolysin, copolymd. **peptide conjugates**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

IT 20830-81-3DP, Daunomycin, polymer **conjugates**

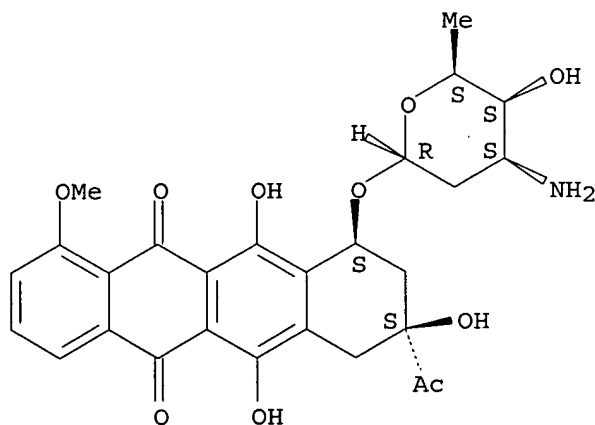
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 20830-81-3, Daunomycin

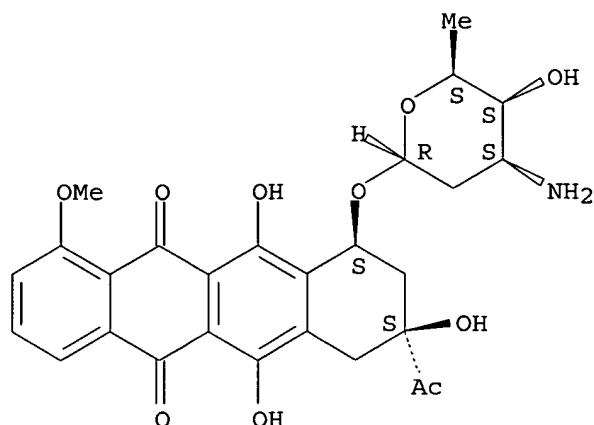
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of drug-delivery polymers and pharmaceutical compns. employing them)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 72 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:69602 HCAPLUS

DOCUMENT NUMBER: 120:69602

TITLE: Preparation and use of polyanionic polymer-based
conjugates targeted to vascular endothelial
cells

INVENTOR(S): Thorpe, Philip E.

PATENT ASSIGNEE(S): University of Texas System, USA; Imperial Cancer
Research Technology Ltd.

SOURCE: PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9318793	A1	19930930	WO 1993-US2619	19930322 <--
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, KP, KR, LU, MG, MN, MW, NL, NO, PL, PT, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR				
US 5474765	A	19951212	US 1992-856018	19920323 <--
AU 9338166	A1	19931021	AU 1993-38166	19930322 <--
EP 632728	A1	19950111	EP 1993-907633	19930322 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT				
US 5762918	A	19980609	US 1994-307745	19941205 <--
PRIORITY APPLN. INFO.:			US 1992-856018	A2 19920323 <--
			WO 1993-US2619	A 19930322 <--

ED Entered STN: 19 Feb 1994

AB An anionic polymer (e.g. a heparin derivative) is linked to an active agent (especially a steroid), preferably by a selectively hydrolyzable bond, for delivery of the active agent to vascular endothelial cells. The conjugates are useful as angiogenesis inhibitors for treatment of e.g. cancer, arthritis, and diabetic blindness. Thus, heparin was condensed with adipic dihydrazide and then with cortisol; the cortisol:heparin mol ratio in the product was 8-9. This conjugate was markedly acid labile, suppressed DNA synthesis and cell migration in human umbilical vein endothelial cells, retarded or abolished the vascularization of sponges in vivo, and retarded lung tumor growth in mice by 65%. No adverse effects of the conjugate were detected, and equivalent treatments with a mixture of

heparin and cortisol were significantly less effective in all cases.

- IC ICM A61K047-48
- CC 1-8 (Pharmacology)
Section cross-reference(s): 33
- ST anionic polymer targeting vascular endothelium; heparin cortisol
conjugate vascular endothelium; steroid heparin **conjugate**
vascular endothelium
- IT Ricins
RL: PRP (Properties)
(A chains of, **conjugates** with anionic polymers, for targeting
to vascular endothelium)
- IT Amino group
Disulfide group
Amides, biological studies
Esters, biological studies
Glycosides
Peptides, biological studies
RL: BIOL (Biological study)
(anionic polymer **conjugation** to pharmaceutical through, for
targeting to vascular endothelium)
- IT Neoplasm inhibitors
(anionic polymer-angiogenesis inhibitor **conjugates**)
- IT Deoxyribonucleic acid formation
(by blood vessel endothelium cells, modulation of, with anionic
polymer-pharmaceutical **conjugate**)
- IT Alkylating agents, biological
Antibiotics
Pharmaceuticals
Natural products
Nitrogen mustards
RL: BIOL (Biological study)
(**conjugates** with anionic polymers, for targeting to vascular
endothelium)
- IT Blood vessel
(formation of, steroid inhibitors of, **conjugates** with anionic
polymers, for targeting to vascular endothelium)
- IT Adrenal cortex
(function of, suppressants for, **conjugates** with anionic
polymers, for targeting to vascular endothelium)
- IT Cell proliferation
(in blood vessel endothelium, modulation of, with anionic
polymer-pharmaceutical **conjugate**)
- IT Wound healing
(inhibitors, cortisol-heparin **conjugates**)
- IT Hydrazides
RL: BIOL (Biological study)
(of anionic polymers, **conjugates** with pharmaceuticals, for
targeting to vascular endothelium)
- IT Sulfonic acids, compounds
RL: BIOL (Biological study)
(alkane, **conjugates** with anionic polymers, for targeting to
vascular endothelium)
- IT Polyelectrolytes
(anionic, **conjugates** with pharmaceuticals, for targeting to
vascular endothelium)
- IT Nutrients
(anti-, **conjugates** with anionic polymers, for targeting to
vascular endothelium)
- IT Alkaloids, compounds
RL: BIOL (Biological study)

- (**conjugates**, vinca, with anionic polymers, for targeting to vascular endothelium)
- IT Enzymes
Steroids, compounds
RL: BIOL (Biological study)
(**conjugates**, with anionic polymers, for targeting to vascular endothelium)
- IT Blood vessel
(endothelium, pharmaceutical targeting to cells of, by **conjugation** with anionic polymer)
- IT Functional groups
(hydrazino, anionic polymer **conjugation** to pharmaceutical through, for targeting to vascular endothelium)
- IT **Pharmaceutical dosage forms**
(parenterals, anionic polymer **conjugates**, for targeting to vascular endothelium)
- IT Sulfonic acids, polymers
RL: BIOL (Biological study)
(polymers, **conjugates** with pharmaceuticals, for targeting to vascular endothelium)
- IT Functional groups
(trisulfide, anionic polymer **conjugation** to pharmaceutical through, for targeting to vascular endothelium)
- IT Interferons
RL: BIOL (Biological study)
(α , **conjugates** with anionic polymers, for targeting to vascular endothelium)
- IT 7664-38-2D, Phosphoric acid, diesters 99933-15-0
RL: BIOL (Biological study)
(anionic polymer **conjugation** to pharmaceutical through, for targeting to vascular endothelium)
- IT 302-01-2D, Hydrazine, condensation products with anionic polymers
1071-93-8D, condensation products with anionic polymers 4146-43-4D,
Succinic dihydrazide, condensation products with anionic polymers
7803-57-8D, Hydrazine hydrate, condensation products with anionic polymers
RL: PRP (Properties)
(**conjugation** of, with pharmaceuticals for targeting to vascular endothelium)
- IT 50-02-2D, Dexamethasone, **conjugates** with anionic polymers
50-07-7D, Mitomycin C, **conjugates** with anionic polymers
50-18-0D, Cyclophosphamide, **conjugates** with anionic polymers
50-22-6D, Corticosterone, **conjugates** with anionic polymers
50-23-7D, Cortisol, **conjugates** with anionic polymers 50-24-8D,
Prednisolone, **conjugates** with anionic polymers 50-44-2D,
6-Mercaptopurine, **conjugates** with anionic polymers 50-76-0D,
Dactinomycin, **conjugates** with anionic polymers 50-91-9D,
Floxuridine, **conjugates** with anionic polymers 51-21-8D,
Fluorouracil, **conjugates** with anionic polymers 51-75-2D,
Mechlorethamine, **conjugates** with anionic polymers 52-24-4D,
Thiotepa, **conjugates** with anionic polymers 53-02-1D,
Tetrahydrocortisol, **conjugates** with anionic polymers 53-03-2D,
Prednisone, **conjugates** with anionic polymers 53-05-4D,
Tetrahydrocortisone, **conjugates** with anionic polymers
53-06-5D, Cortisone, **conjugates** with anionic polymers
53-16-7D, Estrone, **conjugates** with heparin 53-19-0D, Mitotane,
conjugates with anionic polymers 53-33-8D, Paramethasone,
conjugates with anionic polymers 54-62-6D, Aminopterin,
conjugates with heparin 55-98-1D, Busulfan, **conjugates**
with anionic polymers 57-13-6D, Urea, derivs., **conjugates** with
anionic polymers 57-22-7D, Vincristine, **conjugates** with

anionic polymers 57-83-0D, Progesterone, **conjugates** with
 heparin 58-22-0D, Testosterone, **conjugates** with heparin
 58-61-7D, Adenosine, **conjugates** with anionic polymers
 58-63-9D, Inosine, **conjugates** with anionic polymers 58-85-5D,
 Biotin, **conjugates** with anionic polymers 59-05-2D,
 Methotrexate, **conjugates** with anionic polymers 59-30-3D, Folic
 acid, analogs, **conjugates** with anionic polymers 64-85-7D,
 Deoxycorticosterone, **conjugates** with anionic polymers
 67-73-2D, **conjugates** with anionic polymers 68-42-8D,
 Tetrahydrocorticosterone, **conjugates** with anionic polymers
 68-94-0D, Hypoxanthine, **conjugates** with anionic polymers
 68-96-2D, 17 α -Hydroxyprogesterone, **conjugates** with anionic
 polymers 83-43-2D, Methylprednisolone, **conjugates** with anionic
 polymers 98-92-0D, Nicotinamide, **conjugates** with anionic
 polymers 108-78-1D, 1,3,5-Triazine-2,4,6-triamine, methylated derivs.,
conjugates with anionic polymers 120-73-0D, Purine, analogs,
conjugates with anionic polymers 124-94-7D, Triamcinolone,
conjugates with anionic polymers 125-84-8D, Aminoglutethimide,
conjugates with anionic polymers 127-07-1D, Hydroxyurea,
conjugates with anionic polymers 145-13-1D, Pregnenolone,
conjugates with anionic polymers 145-63-1D, Suramin,
conjugates with pharmaceuticals 145-63-1D, Suramin, derivs.,
conjugates with pharmaceuticals 147-94-4D, Cytarabine,
conjugates with anionic polymers 148-82-3D, Melphalan,
conjugates with anionic polymers 151-56-4D, Ethylenimine,
 derivs., **conjugates** with anionic polymers 152-58-9D,
conjugates with anionic polymers 152-97-6D, Fluocortolone,
conjugates with anionic polymers 154-42-7D, 6-Thioguanine,
conjugates with anionic polymers 154-93-8D, Carmustine,
conjugates with anionic polymers 289-95-2D, Pyrimidine, analogs,
conjugates with anionic polymers 305-03-3D, Chlorambucil,
conjugates with anionic polymers 312-93-6D, Dexamethasone
 21-phosphate, **conjugates** with heparin 356-12-7D, Fluocinonide,
conjugates with anionic polymers 363-24-6D, Prostaglandin E2,
conjugates with anionic polymers 378-44-9D, Betamethasone,
conjugates with anionic polymers 382-67-2D, Desoximetasone,
conjugates with anionic polymers 426-13-1D, Fluorometholone,
conjugates with anionic polymers 566-35-8D, **conjugates**
 with anionic polymers 638-94-8D, Desonide, **conjugates** with
 anionic polymers 645-05-6D, Hexamethylmelamine, **conjugates**
 with anionic polymers 671-16-9D, Procarbazine, **conjugates** with
 anionic polymers 865-21-4D, Vinblastine, **conjugates** with
 anionic polymers 1398-61-4D, Chitin, sulfated,
conjugates with pharmaceuticals 1524-88-5D, Flurandrenolide,
conjugates with anionic polymers 2203-97-6D, Cortisol
 21-hemisuccinate, **conjugates** with heparin 2557-49-5D,
 Diflorasone, **conjugates** with anionic polymers 2668-66-8D,
 Medrysone, **conjugates** with anionic polymers 3093-35-4D,
 Halcinonide, **conjugates** with anionic polymers 3385-03-3D,
 Flunisolide, **conjugates** with anionic polymers 3778-73-2D,
 Ifosfamide, **conjugates** with anionic polymers 3863-59-0D,
 Cortisol 21-phosphate, **conjugates** with heparin 4342-03-4D,
conjugates with anionic polymers 4375-07-9D, Epipodophyllotoxin,
conjugates with anionic polymers 4828-27-7D, Clo cortolone,
conjugates with anionic polymers 5534-09-8D, Beclomethasone
 dipropionate, **conjugates** with anionic polymers 7440-06-4D,
 Platinum, complexes, **conjugates** with anionic polymers
 7664-93-9D, Sulfuric acid, esters, **conjugates** with
 pharmaceuticals 9002-89-5D, Poly(vinyl alcohol), sulfated,
conjugates with pharmaceuticals 9005-32-7D, Alginic

acid, sulfated, **conjugates** with pharmaceuticals
 9005-49-6D, Heparin, **conjugates** with pharmaceuticals
 9005-49-6D, Heparin, derivs., **conjugates** with
 pharmaceuticals 9007-28-7D, Chondroitin sulfate,
conjugates with pharmaceuticals 9012-76-4D, Chitosan,
 sulfated, **conjugates** with pharmaceuticals 9015-68-3D,
 L-Asparaginase, **conjugates** with anionic polymers
 9041-08-1D, Heparin sodium salt, **conjugates** with
 pharmaceuticals 9050-30-0D, Heparan sulfate, **conjugates**
 with pharmaceuticals 9056-36-4D, Keratan sulfate,
conjugates with pharmaceuticals 11056-06-7D, Bleomycin,
conjugates with anionic polymers 12619-70-4D, Cyclodextrin,
 sulfated, **conjugates** with pharmaceuticals 13010-20-3D,
 Nitrosourea, derivs., **conjugates** with anionic polymers
 13010-47-4D, Lomustine, **conjugates** with anionic polymers
 13909-09-6D, Semustine, **conjugates** with anionic polymers
 15056-34-5D, Triazene, derivs., **conjugates** with anionic polymers
 15663-27-1D, Cisplatin, **conjugates** with anionic polymers
 17673-25-5D, Phorbol, esters, **conjugates** with anionic polymers
 18378-89-7D, Plicamycin, **conjugates** with anionic
 polymers 18378-89-7D, Mithramycin, **conjugates** with
 heparin 18883-66-4D, Streptozocin, **conjugates** with anionic
 polymers 20830-81-3D, Daunorubicin, **conjugates** with
 anionic polymers 23214-92-8D, Doxorubicin, **conjugates** with
 anionic polymers 24967-94-0D, Dermatan sulfate,
conjugates with pharmaceuticals 25122-41-2D, Clobetasol,
conjugates with anionic polymers 25191-25-7D, Poly(vinyl
 sulfate), **conjugates** with pharmaceuticals 26101-52-0D,
conjugates with pharmaceuticals 29767-20-2D, Teniposide,
conjugates with anionic polymers 33419-42-0D, Etoposide,
conjugates with anionic polymers 37300-21-3D, **conjugates**
 with pharmaceuticals 41575-94-4D, Carboplatin, **conjugates** with
 anionic polymers 50851-57-5D, Poly(styrenesulfonic acid),
conjugates with pharmaceuticals 50935-04-1D, **conjugates**
 with heparin 51022-69-6D, Amcinonide, **conjugates** with anionic
 polymers 53910-25-1D, Pentostatin, **conjugates** with anionic
 polymers 54063-32-0D, Clobetasone, **conjugates** with anionic
 polymers 65271-80-9D, Mitoxantrone, **conjugates** with anionic
 polymers 67452-97-5D, Alclometasone, **conjugates** with anionic
 polymers 105102-22-5D, Mometasone, **conjugates** with anionic
 polymers 108121-76-2D, Anthracenedione, derivs., **conjugates**
 with anionic polymers

RL: BIOL (Biological study)
 (for targeting to vascular endothelium)

IT 7440-70-2, Calcium, biological studies

RL: BIOL (Biological study)
 (ionophores, **conjugates** with anionic polymers, for targeting
 to vascular endothelium)

IT 68181-17-9P, N-Hydroxysuccinimidyl 3-(2-pyridyldithio)propionate
 80445-77-8P 152406-31-0P 152434-55-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and **conjugation** with heparin)

IT 1398-61-4D, Chitin, sulfated, **conjugates** with
 pharmaceuticals 9005-32-7D, Alginic acid, sulfated,
conjugates with pharmaceuticals 9005-49-6D, Heparin,
conjugates with pharmaceuticals 9007-28-7D, Chondroitin
 sulfate, **conjugates** with pharmaceuticals 9012-76-4D,
 Chitosan, sulfated, **conjugates** with pharmaceuticals
 9041-08-1D, Heparin sodium salt, **conjugates** with
 pharmaceuticals 9050-30-0D, Heparan sulfate, **conjugates**

with pharmaceuticals **9056-36-4D**, Keratan sulfate,
conjugates with pharmaceuticals **18378-89-7D**, Plicamycin,
conjugates with anionic polymers **20830-81-3D**,
Daunorubicin, **conjugates** with anionic polymers
24967-94-0D, Dermatan sulfate, **conjugates** with
pharmaceuticals

RL: BIOL (Biological study)
(for targeting to vascular endothelium)

RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-32-7 HCAPLUS
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

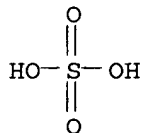
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9041-08-1 HCAPLUS
CN Heparin, sodium salt (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 70226-44-7
CMF Unspecified
CCI MAN

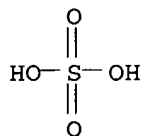
Considered
06/20/06
MEC

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9

CMF H2 O4 S



RN 9056-36-4 HCAPLUS

CN Keratosulfate (9CI) (CA INDEX NAME)

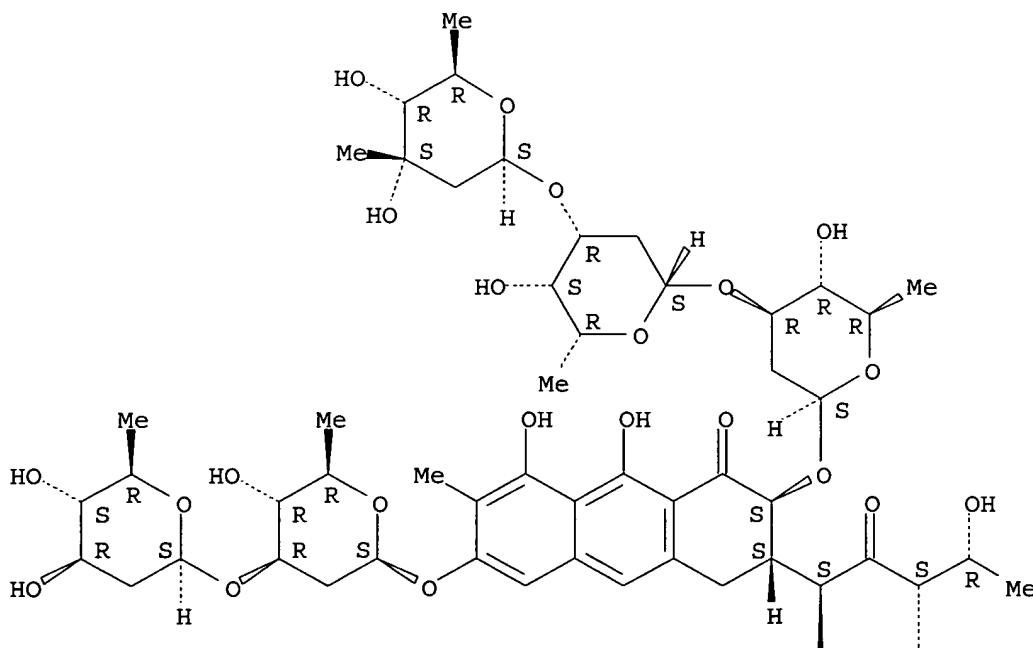
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[[2,6-dideoxy-3-O-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-β-D-arabino-hexopyranosyl]oxy]-3-[(O-2,6-dideoxy-3-C-methyl-β-D-ribo-hexopyranosyl-(1→3)-O-2,6-dideoxy-β-D-lyxo-hexopyranosyl-(1→3)-2,6-dideoxy-β-D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

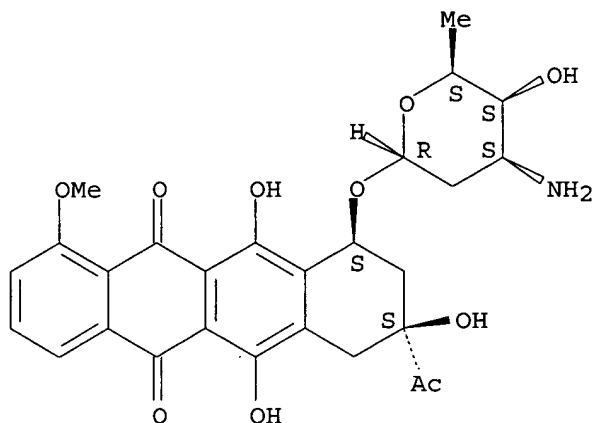


PAGE 2-A

OMe	OH

RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 24967-94-0 HCAPLUS
 CN Dermatan, hydrogen sulfate (ester) (9CI) (CA INDEX NAME)

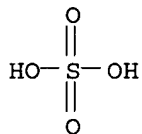
CM 1

CRN 75634-40-1
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
 CMF H2 O4 S



L242 ANSWER 73 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:641370 HCAPLUS
 DOCUMENT NUMBER: 119:241370
 TITLE: Polymer **conjugates** for the simultaneous delivery of neoplasm inhibitor activatable by enzymes and light.

INVENTOR(S): Kopecek, Jindrich; Krinick, Nancy
 PATENT ASSIGNEE(S): University of Utah, USA
 SOURCE: PCT Int. Appl., 89 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9314142	A1	19930722	WO 1993-US683	19930121 <--
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5258453	A	19931102	US 1992-822924	19920121 <--
AU 9335930	A1	19930803	AU 1993-35930	19930121 <--
AU 663167	B2	19950928		
EP 621880	A1	19941102	EP 1993-904633	19930121 <--
EP 621880	B1	19990908		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
HU 68082	A2	19950529	HU 1994-2142	19930121 <--
JP 08500327	T2	19960116	JP 1993-512746	19930121 <--
PL 172184	B1	19970829	PL 1993-304685	19930121 <--
AT 184201	E	19990915	AT 1993-904633	19930121 <--
FI 9403430	A	19940920	FI 1994-3430	19940720 <--
PRIORITY APPLN. INFO.:			US 1992-822924	A 19920121 <--
			WO 1993-US683	A 19930121 <--

ED Entered STN: 11 Dec 1993

AB Neoplasm inhibitors comprise a copolymeric carrier having attached thereto both an anticancer drug and a photoactivatable drug, and/or a mixture of copolymeric carriers wherein one copolymeric carrier has attached an anticancer drug and the other copolymeric carrier has attached a photoactivatable drug. The anticancer drug is attached to the polymeric carrier by side chains which are stable in the blood stream but susceptible to hydrolysis by lysosomal enzymes intracellularly. The photoactivatable drug is attached by either the same degradable side chain or by a nondegradable attachment. The polymer carrier may optionally contain a targeting moiety. Upon administration, polymeric macromols. enter targeted cancer cells by pinocytosis which reduces the side effects normally elicited by the free drugs. A time lag is allowed following administration for optimal uptake of the copolymers in the cancerous tissue for the anticancer agent to begin to take effect. Then a light source of the appropriate wavelength and energy is applied to activate the photoactivatable drug. The combined effect of the anticancer agent and photoactivatable drug provides greater cell destruction at reduced dosages and side effects. MA-Gly-Ph-Leu-Gly-ONp (MA = methacryloyl; Np = p-nitrophenyl) was copolymerized with N-(2-hydroxypropyl)methacrylamide and adriamycin was attached to the **peptide** side chain. A similar copolymer comprising mesochlorin e6 attached to a glycine side chain was also prepared. The 2 copolymers were administered simultaneously to mice bearing C1300 neuroblastoma tumors followed two days later by laser irradiation. The treatment resulted in sharp decrease of the tumor volume.

IC ICM C08G063-48

ICS C08G063-91

CC 1-6 (Pharmacology)

Section cross-reference(s): 8, 63

ST anticancer polymer **conjugate** light enzyme activable

IT Lysosome

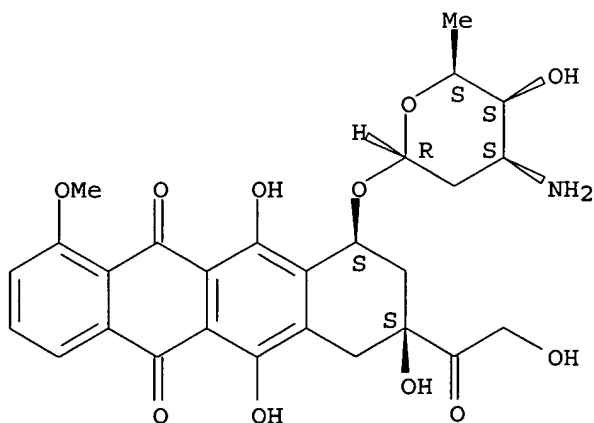
(anticancer drug **conjugated** with polymer via linker cleavable by, in cancer cells)

IT Neoplasm inhibitors

- (**conjugates** with polymers, enzyme- and light-activated)
- IT Photosensitizers
(**conjugates** with polymers, enzyme-activatable neoplasm inhibitor-polymer **conjugates** and, neoplasm inhibition with)
- IT Enzymes
RL: BIOL (Biological study)
(lysosomal, anticancer drug **conjugated** with polymer via linker cleavable by, in cancer cells)
- IT **Pharmaceutical dosage forms**
(of anticancer drug-polymer **conjugates** and photoactivatable drug-polymer **conjugates**)
- IT Dyes
(cationic, **conjugates** with polymers, as photoactivatable neoplasm inhibitors)
- IT Phototherapy
(chemo-, in neoplasm inhibition, photoactivatable drug and enzyme activatable drug **conjugates** with polymers for)
- IT Porphyrins
RL: BIOL (Biological study)
(chlorins, **conjugates** with polymers, as photoactivatable neoplasm inhibitors)
- IT **Oligosaccharides**
RL: BIOL (Biological study)
(**conjugates**, as lysosomal enzyme-cleavable **linker** in anticancer drug-polymer)
- IT **Polysaccharides, compounds**
RL: BIOL (Biological study)
(**conjugates**, with anticancer drugs and photoactivatable drugs)
- IT **Peptides, compounds**
RL: BIOL (Biological study)
(oligo-, **conjugates**, as lysosomal enzyme-cleavable **linker** in anticancer drug-polymer)
- IT Porphyrins
RL: BIOL (Biological study)
(polymers, **conjugates** with polymers, as photoactivatable neoplasm inhibitors)
- IT Porphyrins
RL: BIOL (Biological study)
(purpurins, **conjugates** with polymers, as photoactivatable neoplasm inhibitors)
- IT Photodynamic action
(therapeutic, in neoplasm inhibition, photoactivatable drug and enzyme activatable drug **conjugates** with polymers for)
- IT 60-54-8D, Tetracycline, derivs., **conjugates** with polymers
RL: BIOL (Biological study)
(as photo-activated neoplasm inhibitors)
- IT 574-93-6D, Phthalocyanine, derivs., **conjugates** with polymers
23627-89-6D, Naphthalocyanine, derivs., **conjugates** with polymers
RL: BIOL (Biological study)
(as photoactivatable neoplasm inhibitors)
- IT **25316-40-9**, Adriamycin hydrochloride 126294-34-6
RL: PRP (Properties)
(**conjugation** of, to activated **dextran**)
- IT 147740-90-7
RL: PRP (Properties)
(**conjugation** of, to polymer)
- IT 7693-46-1, p-Nitrophenyl chloroformate
RL: BIOL (Biological study)
(**dextran** activation by, for **conjugation** with

- neoplasm inhibitors)
- IT 721-90-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with **peptide** nitrophenyl ester)
- IT 9004-54-0DP, **Dextran, conjugates** with neoplasm inhibitors 17034-35-4DP, Secretin (pig), **conjugates** with polymer **conjugated** with mesochlorin e6 derivative
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- IT 53-79-2DP, Puromycin, **conjugates** with poly(vinylpyrrolidone-maleic anhydride) 62238-85-1DP, reaction products with mesochlorin e6 derivative and secretin 62849-65-4DP, **conjugates** with puromycin and mesochlorin e6 derivative 100424-72-4DP, reaction products with adriamycin and mesochlorin e6 derivative and secretin 147740-90-7DP, **conjugates** with polymers
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as neoplasm inhibitor)
- IT 148-82-3DP, Melphalan, **conjugates** with polymers 11056-06-7DP, Bleomycin, **conjugates** with polymers 20830-81-3DP, Daunomycin, **conjugates** with polymers 23214-92-8DP, Adriamycin, **conjugates** with polymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as neoplasm inhibitors)
- IT 668-74-6DP, Mesochlorin e6, **conjugates** with polymers 2683-84-3DP, Chlorin, derivs., **conjugates** with polymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as photoactivatable neoplasm inhibitors)
- IT 25316-40-9, Adriamycin hydrochloride
RL: PRP (Properties)
(**conjugation** of, to activated **dextran**)
- RN 25316-40-9 HCAPLUS
- CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



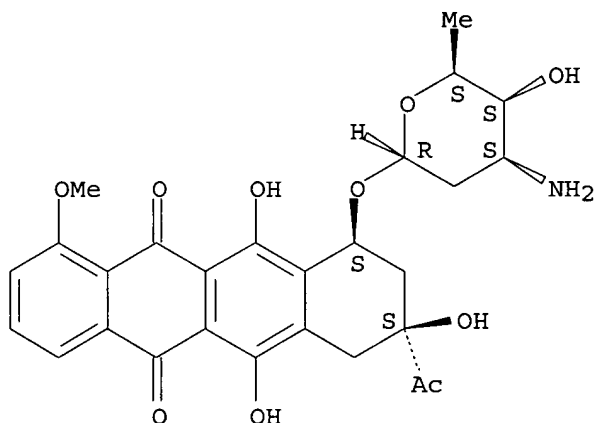
● HCl

IT 9004-54-0DP, Dextran, conjugates with neoplasm inhibitors
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 9004-54-0 HCAPLUS
 CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 20830-81-3DP, Daunomycin, conjugates with polymers
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as neoplasm inhibitors)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242/ANSWER 74 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:546612 HCAPLUS

DOCUMENT NUMBER: 119:146612

TITLE: Pharmaceutical compositions containing polymer derivative-bound anthracycline glycosides and a method for their preparation

INVENTOR(S): Adami, Marco; Magrini, Roberto; Maranghi, Paolo; Suarato, Antonino

PATENT ASSIGNEE(S): Farmitalia Carlo Erba S.r.l., Italy

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9313804	A1	19930722	WO 1992-EP2968	19921221 <--
W: AU, CA, FI, HU, JP, KR, NZ, RU, UA				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2105466	AA	19930708	CA 1992-2105466	19921221 <--
AU 9333468	A1	19930803	AU 1993-33468	19921221 <--

AU 666513	B2	19960215		
EP 574571	A1	19931222	EP 1993-902124	19921221 <--
EP 574571	B1	19990506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 06505755	T2	19940630	JP 1992-512103	19921221 <--
HU 74578	A2	19970128	HU 1993-2517	19921221 <--
HU 217806	B	20000428		
RU 2118171	C1	19980827	RU 1993-55778	19921221 <--
AT 179618	E	19990515	AT 1993-902124	19921221 <--
ES 2133380	T3	19990916	ES 1993-902124	19921221 <--
ZA 9210049	A	19931006	ZA 1992-10049	19921228 <--
US 6245358	B1	20010612	US 1992-997582	19921228 <--
IL 104256	A1	19970218	IL 1992-104256	19921229 <--
PRIORITY APPLN. INFO.:			GB 1992-247	A 19920107 <--
			WO 1992-EP2968	A 19921221 <--
ED	Entered STN: 02 Oct 1993			
AB	An antitumor lyophilized composition contains (1) a conjugate comprising N-alkyl methacrylamide-based copolymer and an anthracycline glycoside linked through a peptide spacer to the copolymer and (2) a solubilizing agent. Optionally, a targeting moiety is linked through a peptide spacer to the polymer. The composition shows a reduced dissoln. time when reconstituted with an aqueous diluent. A freeze-dried preparation containing a conjugate of doxorubicin with N-(2-hydroxypropyl)methacrylamide polymer and Gly-Phe-Leu-Gly spacer, equivalent to doxorubicin 5 mg, polysorbate 80 2mg, and lactose 140 mg was reconstituted with water in <1 min.			
IC	ICM A61K047-48			
CC	63-6 (Pharmaceuticals)			
ST	anthracycline methacrylamide polymer conjugate antitumor lyophilizate			
IT	Amino acids, biological studies			
	Carbohydrates and Sugars, biological studies			
	Polysaccharides, biological studies			
	Salts, biological studies			
	RL: PREP (Preparation)			
	(antitumor freeze-dried preps. containing anthracycline-(hydroxypropyl)methacrylamide polymer conjugate and)			
IT	Neoplasm inhibitors			
	(freeze-dried compns. containing anthracycline conjugates with (hydroxypropyl)methacrylamide polymer for)			
IT	Lecithins			
	Phosphatides			
	RL: BIOL (Biological study)			
	(solubilizing agent, antitumor lyophilized compns. containing anthracycline conjugates with (hydroxypropyl)methacrylamide polymer and)			
IT	Fatty acids, esters			
	RL: BIOL (Biological study)			
	(ethoxylated, solubilizing agent, antitumor lyophilized compns. containing anthracycline conjugates with (hydroxypropyl)methacrylamide polymer and)			
IT	Pharmaceutical dosage forms			
	(freeze-dried, of anthracycline conjugates with (hydroxypropyl)methacrylamide polymer, solubilizing agents and fillers in)			
IT	Alcohols, biological studies			
	RL: PREP (Preparation)			
	(polyhydric, antitumor freeze-dried preps. containing anthracycline-(hydroxypropyl)methacrylamide polymer conjugate and)			
IT	59-23-4D , Galactose, conjugates with anthracycline and (hydroxypropyl)methacrylamide polymer and 3416-24-8D ,			

Glucosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 6931-59-5D, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 7535-00-4D, Galactosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 13000-25-4D, Lactosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 14307-02-9D, Mannosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 20830-81-3D, Daunorubicin, **conjugates** with (hydroxypropyl)methacrylamide polymer 21442-01-3D, N-(2-Hydroxypropyl)methacrylamide, polymers, anthracycline **conjugates** 23214-92-8D, Doxorubicin, **conjugates** with (hydroxypropyl)methacrylamide polymer 56420-45-2D, Epirubicin, **conjugates** with (hydroxypropyl)methacrylamide polymer 58957-92-9D, Idarubicin, **conjugates** with (hydroxypropyl)methacrylamide polymer 104845-49-0D, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer
 RL: BIOL (Biological study)

(antitumor freeze-dried prepns. containing)

IT 50-99-7, Glucose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-79-4, Maltose
 RL: BIOL (Biological study)

(antitumor freeze-dried prepns. containing anthracycline-(hydroxypropyl)methacrylamide polymer **conjugate** and)

IT 9004-99-3, Polyoxyethylene stearate 9005-64-5, Polysorbate 20 9005-65-6, Polysorbate 80 106392-12-5, Poloxamer
 RL: BIOL (Biological study)

(solubilizing agent, antitumor lyophilized compns. containing anthracycline **conjugates** with (hydroxypropyl)methacrylamide polymer and)

IT 59-23-4D, Galactose, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 3416-24-8D, Glucosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 7535-00-4D, Galactosamine, **conjugates** with anthracycline and (hydroxypropyl)methacrylamide polymer and 20830-81-3D, Daunorubicin, **conjugates** with (hydroxypropyl)methacrylamide polymer

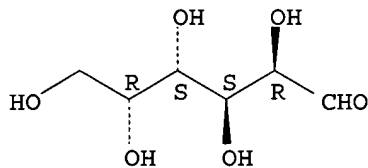
RL: BIOL (Biological study)

(antitumor freeze-dried prepns. containing)

RN 59-23-4 HCAPLUS

CN D-Galactose (9CI) (CA INDEX NAME)

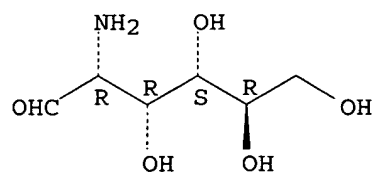
Absolute stereochemistry. Rotation (+).



RN 3416-24-8 HCAPLUS

CN D-Glucose, 2-amino-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

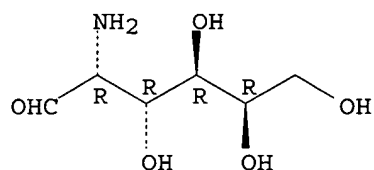
Absolute stereochemistry. Rotation (+).



RN 7535-00-4 HCAPLUS

CN D-Galactose, 2-amino-2-deoxy- (9CI) (CA INDEX NAME)

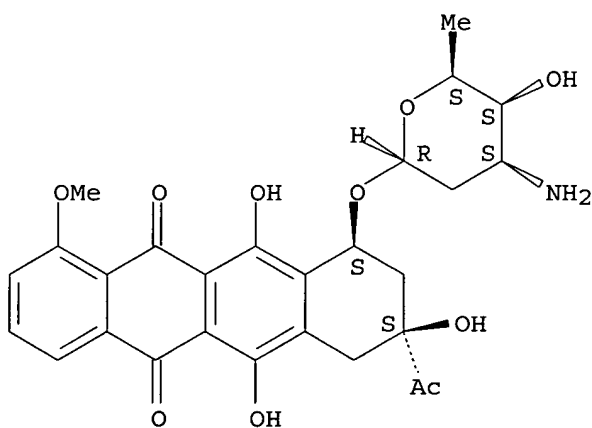
Absolute stereochemistry.



RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 50-99-7, Glucose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-79-4, Maltose

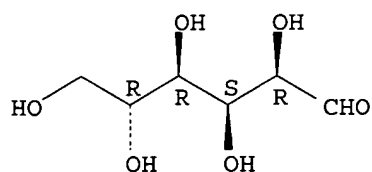
RL: BIOL (Biological study)

(antitumor freeze-dried preps. containing anthracycline-(hydroxypropyl)methacrylamide polymer **conjugate** and)

RN 50-99-7 HCAPLUS

CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

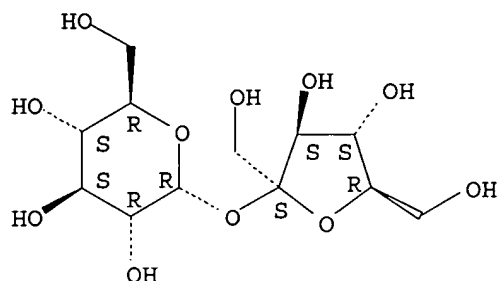
Absolute stereochemistry.



RN 57-50-1 HCAPLUS

CN α -D-Glucopyranoside, β -D-fructofuranosyl (9CI) (CA INDEX NAME)

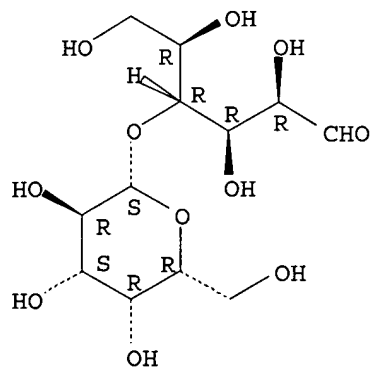
Absolute stereochemistry.



RN 63-42-3 HCAPLUS

CN D-Glucose, 4-O- β -D-galactopyranosyl- (9CI) (CA INDEX NAME)

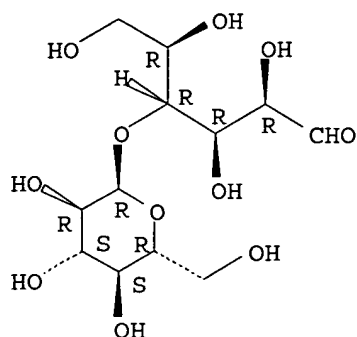
Absolute stereochemistry. Rotation (+).



RN 69-79-4 HCAPLUS

CN D-Glucose, 4-O- α -D-glucopyranosyl- (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 75 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:656554 HCAPLUS

DOCUMENT NUMBER: 119:256554

TITLE: Polymeric carriers for non-covalent drug
conjugation

INVENTOR(S): Morgan, Alton C., Jr.; Anderson, David C.

PATENT ASSIGNEE(S): Neorx Corp., USA

SOURCE: U.S., 11 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5252713	A	19931012	US 1988-248456	19880923 <--
US 5420105	A	19950530	US 1993-95515	19930726 <--
PRIORITY APPLN. INFO.:			US 1988-248456	A2 19880923 <--

ED Entered STN: 11 Dec 1993

AB The title polymeric carriers are **polypeptides** comprising ≥ 1 drug-binding domains and can be attached to an antibody specific for desired target cells to form immunoconjugates that deliver a drug to the target cells in vivo. Thus, riboflavin-binding **protein** fragments were synthesized using solid phase **peptide** synthesis method, incubated with adriamycin, and polymerized using bis(sulfosuccinimidyl)suberate crosslinking agent. The resulting polymerized carrier having adriamycin bound was purified and attached to a targeting **protein** (not specified).

IC ICM A61K037-02
ICS A61K039-44; C07K003-08

INCL 530391700

CC 63-6 (Pharmaceuticals)

ST drug polymer **protein conjugate** cell targeting;
anticancer immunoconjugate riboflavin binding **protein**;
adriamycin riboflavin binding **protein antibody conjugate**

IT **Orosomucoids**

RL: BIOL (Biological study)
(anthracycline **immunoconjugates** containing, as carriers with drug-binding domains)

IT **Albumins, biological studies**

RL: BIOL (Biological study)
(**immunoconjugates** containing, as carriers with drug-binding domains)

IT **Antibodies**
Enzymes
Hormones
RL: BIOL (Biological study)
(**immunoconjugates** containing, as targeting **proteins**)

IT Neoplasm inhibitors
Anthracyclines
Steroids, biological studies
RL: BIOL (Biological study)
(**immunoconjugates** containing, **protein** carriers with drug-binding domains in)

IT **Proteins, biological studies**
RL: BIOL (Biological study)
(of serum, **immunoconjugates** containing, as targeting **proteins**)

IT **Pharmaceutical dosage forms**
(**immunoconjugates**, **protein** carriers with drug-binding domains in)

IT **Proteins, specific or class**
RL: BIOL (Biological study)
(riboflavin-binding, anthracycline **immunoconjugates** containing, as carriers with drug-binding domains)

IT **Proteins, specific or class**
RL: BIOL (Biological study)
(steroid-binding, **immunoconjugates** containing, as carriers with drug-binding domains)

IT 50-07-7, Mitomycin C 50-44-2, 6-Mercaptopurine 59-05-2, Methotrexate
85-31-4, 6-Mercaptoguanosine 147-94-4, ARA-C 865-21-4, Vinblastine
15663-27-1, cis-Platinum 20830-81-3, Daunorubicin 23214-92-8,
Doxorubicin 65271-80-9, Mitoxantrone
RL: BIOL (Biological study)
(**immunoconjugates** containing, **protein** carriers with drug-binding domains in)

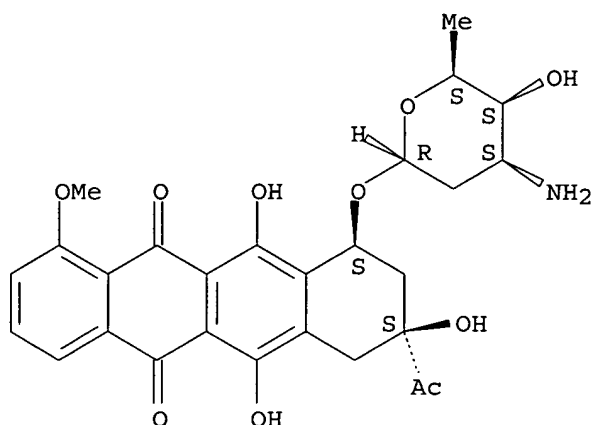
IT 506-68-3, Cyanogen bromide 123175-81-5, Endoproteinase Arg-C
RL: BIOL (Biological study)
(riboflavin-binding **protein** treatment with, in preparation of **protein** carriers with drug-binding domains for **immunoconjugates**)

IT 20830-81-3, Daunorubicin
RL: BIOL (Biological study)
(**immunoconjugates** containing, **protein** carriers with drug-binding domains in)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 76 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:641371 HCAPLUS

DOCUMENT NUMBER: 119:241371

TITLE: Thioether-linked drug-ligand **conjugates**

INVENTOR(S): Willner, David; Trail, Pamela A.; King, Dalton H.;

Hofstead, Sandra J.; Greenfield, Robert S.;

Braslawsky, Gary R.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA

SOURCE: Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 554708	A1	19930811	EP 1993-100732	19930119 <--
EP 554708	B1	20050504		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5622929	A	19970422	US 1992-824951	19920123 <--
CA 2087286	AA	19930724	CA 1993-2087286	19930114 <--
CA 2087286	C	20040406		
AT 294592	E	20050515	AT 1993-100732	19930119 <--
ES 2240959	T3	20051016	ES 1993-100732	19930119 <--
AU 9331881	A1	19930729	AU 1993-31881	19930120 <--
AU 666903	B2	19960229		
ZA 9300444	A	19930721	ZA 1993-444	19930121 <--
NO 9300189	A	19930726	NO 1993-189	19930121 <--
JP 06025012	A2	19940201	JP 1993-40372	19930121 <--
HU 68345	A2	19950628	HU 1993-156	19930121 <--
RO 112618	B1	19971128	RO 1993-69	19930121 <--
PL 172718	B1	19971128	PL 1993-317516	19930122 <--
PL 172715	B1	19971128	PL 1993-317519	19930122 <--
PL 172828	B1	19971231	PL 1993-297514	19930122 <--
PL 172837	B1	19971231	PL 1993-317517	19930122 <--
PL 172827	B1	19971231	PL 1993-317518	19930122 <--
PL 172824	B1	19971231	PL 1993-317715	19930122 <--
CN 1074684	A	19930728	CN 1993-100709	19930123 <--
CN 1040540	B	19981104		
US 5606017	A	19970225	US 1995-468162	19950606 <--

US 5708146	A	19980113	US 1995-469840	19950606 <--
CN 1207946	A	19990217	CN 1997-117785	19970826 <--
CN 1180711	A	19980506	CN 1997-117908	19970829 <--
PRIORITY APPLN. INFO.:			US 1992-824951	A 19920123 <--

OTHER SOURCE(S): MARPAT 119:241371

ED Entered STN: 11 Dec 1993

AB Drug-ligand conjugates [D=NNHCO(CH₂)_nAS((CH₂)_pC(=Y)NH)z]qX (D = drug; n = 1-10; p = 1-6; Y = O, NH₂+Cl-; z = 0, 1; q = 1-10; X = ligand; A = Michael addition adduct) are prepared for therapeutic use. Adriamycin hydrochloride was reacted with maleimidocaproyl hydrazide (preparation given) and then conjugated with thiolated monoclonal antibodies (MAbs), reduced MAbs, or modified bombesin [(Cys0, Lys3)bombesin]. The conjugates had antitumor activity in mice.

IC ICM A61K047-48

CC 1-6 (Pharmacology)

Section cross-reference(s): 15, 63

ST drug ligand **conjugate** thioether linkage; adriamycin antibody **conjugate** maleimidocaproylhydrazone antitumor; bombesin adriamycin **conjugation**

IT Neoplasm inhibitors

(adriamycin-monoclonal antibody **conjugates** with thioether linkage as)

IT Agglutinins and Lectins

Transferrins

RL: BIOL (Biological study)

(conjugates with drug, thioether linkage in)

IT Ligands

RL: BIOL (Biological study)

(conjugates with drugs, thioether linkage in)

IT Cytotoxic agents

Pharmaceuticals

(conjugates with ligands, thioether linkage in)

IT Therapeutics

(drug-ligand **conjugates** with thioether linkage for)

IT Gangliosides

RL: BIOL (Biological study)

(monoclonal antibodies to, **conjugates** with drugs, thioether linkage in)

IT Blood-group substances

RL: BIOL (Biological study)

(Ley, monoclonal antibodies to, **conjugates** with drugs, thioether linkage in)

IT Antibiotics

(anthracycline, **conjugates** with ligands, thioether linkage in)

IT Animal growth regulators

RL: BIOL (Biological study)

(blood platelet-derived growth factors, **conjugates** with drug, thioether linkage in)

IT Neoplasm inhibitors

(colon, adriamycin-monoclonal antibody **conjugates** with thioether linkage as)

IT Intestine, neoplasm

(colon, inhibitors, adriamycin-monoclonal antibody **conjugates** with thioether linkage as)

IT Carbohydrates and Sugars, compounds

Peptides, compounds**Proteins, specific or class**

Steroids, compounds

RL: BIOL (Biological study)

- (conjugates, linkage in* Peptides,
***co)
- IT **Immunoglobulins**
RL: BIOL (Biological study)
(conjugates, with drugs, thioether linkage in)
- IT **Nucleosides, compounds**
RL: BIOL (Biological study)
(conjugates, with ligands, cytotoxic, thioether linkage in)
- IT **Immunoglobulins**
RL: BIOL (Biological study)
(fusion products, conjugates with drugs,
thioether linkage in)
- IT **Pharmaceutical dosage forms**
(immunoconjugates, of drug and ligand, thioether linkage in relation
to)
- IT Lung, neoplasm
(inhibitors, adriamycin-monoclonal antibody conjugates with
thioether linkage as)
- IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 2, conjugates with drug, thioether linkage in)
- IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 6, conjugates with drug, thioether linkage in)
- IT Neoplasm inhibitors
(lung, adriamycin-monoclonal antibody conjugates with
thioether linkage as)
- IT Neoplasm inhibitors
(mammary gland, adriamycin-monoclonal antibody conjugates
with thioether linkage as)
- IT **Antibodies**
RL: BIOL (Biological study)
(monoclonal, to tumor antigens, conjugates with
drugs, thioether linkage in)
- IT Mammary gland
(neoplasm, inhibitors, adriamycin-monoclonal antibody
conjugates with thioether linkage as)
- IT Animal growth regulators
RL: BIOL (Biological study)
(vaccinia virus growth factors, conjugates with drug,
thioether linkage in)
- IT Alkaloids, compounds
RL: BIOL (Biological study)
(vincal leukoblastine, conjugates with ligands, thioether
linkage in)
- IT Animal growth regulators
RL: BIOL (Biological study)
(α -transforming growth factors, conjugates with drug,
thioether linkage in)
- IT Animal growth regulators
RL: BIOL (Biological study)
(β -transforming growth factors, conjugates with drug,
thioether linkage in)
- IT 3483-12-3, Dithiothreitol
RL: BIOL (Biological study)
(monoclonal antibody relaxation with, in preparation of adriamycin-
monoclonal antibody conjugates)
- IT 68181-17-9DP, SPDP, reaction products with monoclonal antibody BR64 and
with maleimidocaproylhydrazine of adriamycin 151038-96-9DP,
conjugates with thiolated or relaxed monoclonal antibodies or

modified bombesin 151038-98-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and antitumor activity of)

IT 151038-95-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of adriamycin-ligand **conjugates**)

IT 81186-33-6P 151038-94-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with adriamycin hydrochloride, in preparation of drug-ligand **conjugates**)

IT 55750-53-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of adriamycin-ligand **conjugates**)

IT 6539-14-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of adriamycin-monoclonal antibody **conjugates**)

IT 25316-40-9, Adriamycin hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with maleimidocaproyl hydrazide, in preparation of drug-ligand **conjugates**)

IT 91-18-9D, Pteridine, derivs., **conjugates** with ligand
518-28-5D, Podophyllotoxin, derivs., **conjugates** with ligand
1404-00-8D, Mitomycin, derivs., **conjugates** with ligand
9002-76-0D, Gastrin, **conjugates** with drug 9004-10-8D, Insulin,
conjugates with drug 11056-06-7D, Bleomycin, derivs.,
conjugates with ligand 20830-81-3D, Daunomycin,
conjugates with ligand 23214-92-8D, Adriamycin,
conjugates with ligand 31362-50-2D, Bombesin, **conjugates**
with drug 50935-04-1D, **conjugates** with ligand 56124-62-0D,
AD-32, **conjugates** with ligand 56420-45-2D, Epirubicin,
conjugates with ligand 58957-92-9D, Idarubicin,
conjugates with ligand 62229-50-9D, EGF, **conjugates**
with drug 66211-92-5D, Detorubicin, **conjugates** with ligand
67763-96-6D, IGF-I, **conjugates** with drug 67763-97-7D, IGF-II,
conjugates with drug 80043-53-4D, Gastrin-releasing
peptide, **conjugates** with drug 80790-68-7D,
conjugates with ligand 88254-07-3D, 3'-Deamino-3'-(3-cyano-4-morpholinyl)-doxorubicin, **conjugates** with ligand 151078-82-9D,
conjugates with ligand
RL: BIOL (Biological study)
(thioether linkage in)

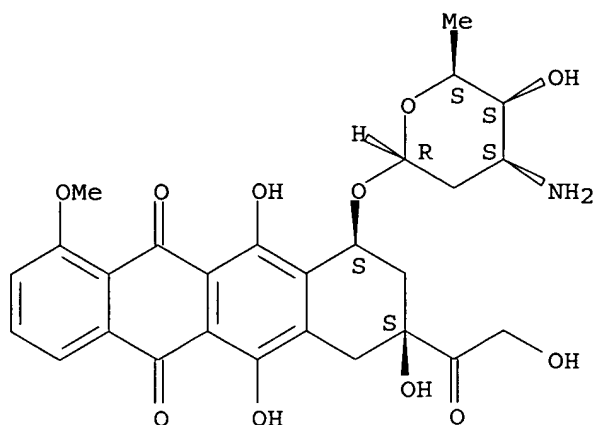
IT 25316-40-9, Adriamycin hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with maleimidocaproyl hydrazide, in preparation of drug-ligand **conjugates**)

RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)-(9CI) (CA INDEX NAME)

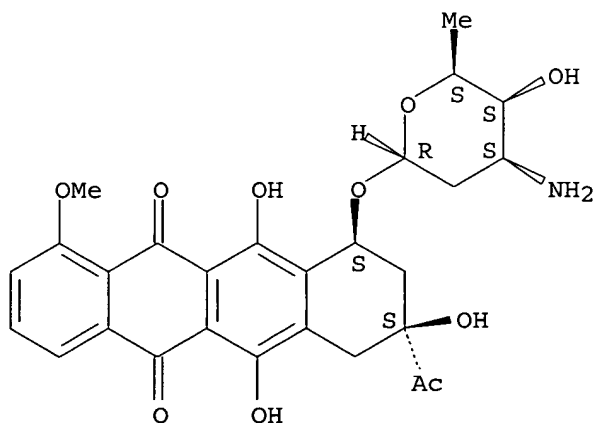
Absolute stereochemistry.



● HCl

IT 20830-81-3D, Daunomycin, **conjugates** with ligand
 RL: BIOL (Biological study)
 (thioether **linkage** in)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

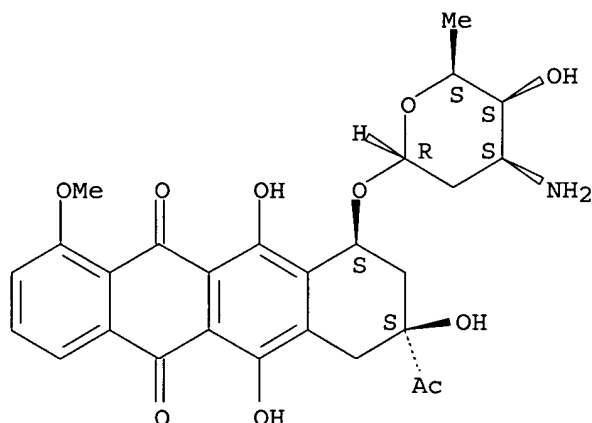


L242 ANSWER 77 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:45402 HCAPLUS
 DOCUMENT NUMBER: 120:45402
 TITLE: The use of daunomycin-antibody immunoconjugates in managing soft tissue sarcomas: nude mouse xenograft model
 AUTHOR(S): Stastny, Jaroslav J.; Das Gupta, Tapas K.
 CORPORATE SOURCE: Cancer Cent., Univ. Illinois, Chicago, IL, 60612, USA
 SOURCE: Cancer Research (1993), 53(23), 5740-4
 CODEN: CNREA8; ISSN: 0008-5472

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Feb 1994
AB Anal. of human fibrosarcoma cells exposed to radiolabeled monoclonal antibody 19-24, which recognizes sarcoma-associated antigen p102, revealed that over 54% of the cell surface-bound radioactivity was internalized. No modulation of cell surface p102 antigen by monoclonal antibody 19-24 was observed in human fibrosarcoma cells. Monoclonal antibody 19-24 coupled to daunomycin via a **dextran** bridge was found to be most effective. In different preps., the daunomycin:total **protein** molar ratio ranged from 1.9 to 6.1. In vitro cytotoxicity studies using human fibrosarcoma cells showed that, at 10 µg/mL concentration, this immunoconjugate was 79.4% as efficient as free daunomycin and, at 1 µg/mL concentration, 36.8% as efficient. Control nonspecific murine monoclonal antibody P3 immunoconjugates were relatively ineffective. The distribution of ¹⁴C-Adriamycin, ¹²⁵I-labeled monoclonal antibody 19-24, and ¹²⁵I-labeled 19-24 immunoconjugate was also evaluated over a 24-h period in tumor and normal tissues of athymic mice bearing a human fibrosarcoma xenograft. Poor uptake of radiolabeled Adriamycin by the tumor tissue was observed. The level of ¹⁴C radioactivity in the tumor tissue never exceeded 1% of the total injected dose and was 24.8-fold lower than the radioactivity found in the spleen tissue. Tumor tissue uptake of radiolabeled monoclonal antibody 19-24 was characterized by the high tumor tissue:blood ratio of 1.62. However, for monoclonal antibody 19-24 immunoconjugates, this ratio decreased to 0.66, which was still higher than normal (liver, 0.48; lung, 0.48; spleen, 0.28) or nonspecific monoclonal antibody P3 immunoconjugates (0.22). Thus, it appears that, compared to free daunomycin, monoclonal antibody 19-24 immunoconjugates may be more efficient and less cytotoxic to normal tissues.

CC 1-6 (Pharmacology)
Section cross-reference(s): 63
ST daunomycin antibody **conjugate** fibrosarcoma inhibition metab
IT **Antibodies**
RL: BIOL (Biological study)
(**conjugates**, daunomycin, fibrosarcoma of human inhibition by and tissue distribution of)
IT Neoplasm inhibitors
(fibrosarcoma, daunomycin-antibody **conjugates**, of human cells)
IT **Pharmaceutical dosage forms**
(immunoconjugates, of daunomycin, fibrosarcoma of human inhibition by and tissue distribution of)
IT **20830-81-3D**, Daunomycin, antibody **conjugates**
RL: BIOL (Biological study)
(fibrosarcoma of human inhibition by and tissue distribution of)
IT **20830-81-3D**, Daunomycin, antibody **conjugates**
RL: BIOL (Biological study)
(fibrosarcoma of human inhibition by and tissue distribution of)
RN 20830-81-3 HCAPLUS
CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 78 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:163873 HCAPLUS

DOCUMENT NUMBER: 120:163873

TITLE: An antibody with dual catalytic activity

AUTHOR(S): Suckling, Colin J.; Tedford, M. Catriona; Bence, Laura M.; Irvine, June I.; Stimson, William H.

CORPORATE SOURCE: Dep. Pure Appl. Chem., Univ. Strathclyde, Glasgow, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999) (

1993), (16), 1925-9

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 02 Apr 1994

AB Antibodies raised to the bovine serum **albumin conjugate** of the adduct of acetoxybutadiene with N-(4-carboxybutanoyl)maleimide have been shown to catalyze the **Diels-Alder cycloaddn.** of 1-acetoxybutadiene with N-benzyl- and N-ethylmaleimide to give isoindolediones I (R = Et, CH₂Ph). For one antibody, designated H11, the reaction was selective for 1-acetoxybutadiene; 1-methoxybutadiene and penta-2,4-diene were not substrates. Product inhibition was not observed but the reaction was found to be pH dependent showing a maximum rate at pH 8.5. Anal. of the products of **cycloaddn.** catalyzed by H11 indicated that the expected acetoxy adduct was obtained but underwent further reaction catalyzed by H11 to afford the corresponding alc. This unexpected discovery of a dual catalytic activity associated with an antibody is discussed in the context of hydrolysis reactions catalyzed by antibodies.

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 9

IT 153255-27-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antibody catalyzed hydrolysis)

IT 153255-26-6P 153255-28-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation by antibody catalyzed Diels-Alder)

IT 153255-29-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation by antibody catalyzed hydrolysis)

IT 153255-27-7P

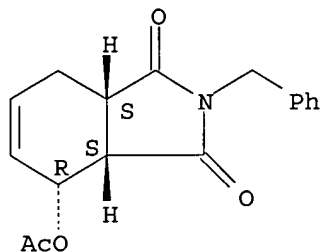
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and antibody catalyzed hydrolysis)

RN 153255-27-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4-(acetyloxy)-3a,4,7,7a-tetrahydro-2-(phenylmethyl)-, (3a α ,4 β ,7a α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



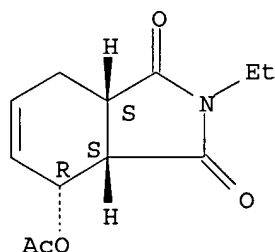
IT 153255-26-6P 153255-28-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation by antibody catalyzed Diels-Alder)

RN 153255-26-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4-(acetyloxy)-2-ethyl-3a,4,7,7a-tetrahydro-, (3a α ,4 β ,7a α)- (9CI) (CA INDEX NAME)

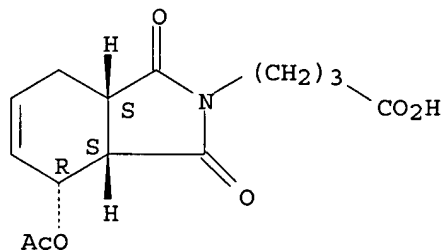
Relative stereochemistry.



RN 153255-28-8 HCAPLUS

CN 2H-Isoindole-2-butanoic acid, 4-(acetyloxy)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-, (3a α ,4 β ,7a α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 153255-29-9P

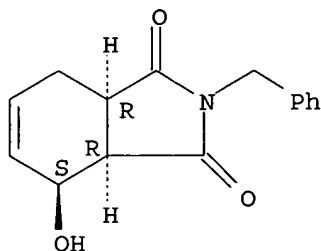
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation by antibody catalyzed hydrolysis)

RN 153255-29-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-4-hydroxy-2-

(phenylmethyl)-, (3 α ,4 β ,7 α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L242 ANSWER 79 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:774414 HCAPLUS

DOCUMENT NUMBER: 123:217874

TITLE: Preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells

AUTHOR(S): Gao, Pujun; Guo, Xiaolin; Song, Guopei; Piao, Yunfeng

CORPORATE SOURCE: First Teaching Hospital, Norman Bethune University of Medical Sciences, Changchun, 130021, Peop. Rep. China

SOURCE: Zhongguo Mianyixue Zazhi (1993), 9(6), 352-4

CODEN: ZMZAEE; ISSN: 1000-484X

PUBLISHER: Zhongguo Mianyixue Zazhi Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 02 Sep 1995

AB It is the first time to use **dextran** T-40 oxidative method to conjugate anti-gastric cancer monoclonal antibody (McAb) with the antitumor medicines daunorubicin (DNR) and methotrexate (MTX) together. Cytotoxicity of conjugates was measured by MTT method and 3H-TdR incorporation method, resp. Both sensitivity is similar. The results have showed that this conjugate exhibited selective cytotoxicity on human gastric cancer cells in vitro.

CC 1-6 (Pharmacology)

Section cross-reference(s): 15

ST stomach cancer antibody daunorubicin methotrexate **conjugate**;
immunotoxin stomach cancer antibody daunorubicin methotrexate

IT **Pharmaceutical dosage forms**

(immunotoxins, preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT Stomach, neoplasm

(inhibitors, preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT **Antibodies**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**monoclonal**, daunorubicin and methotrexate **conjugates** ; preparation of anti-gastric cancer **monoclonal** antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT Neoplasm inhibitors

(stomach, preparation of anti-gastric cancer monoclonal antibody with

daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT 59-05-2D, Methotrexate, monoclonal antibody **conjugate**

20830-81-3D, Daunorubicin, monoclonal antibody **conjugate**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT 9004-54-0, Dextran T-40

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

IT 20830-81-3D, Daunorubicin, monoclonal antibody **conjugate**

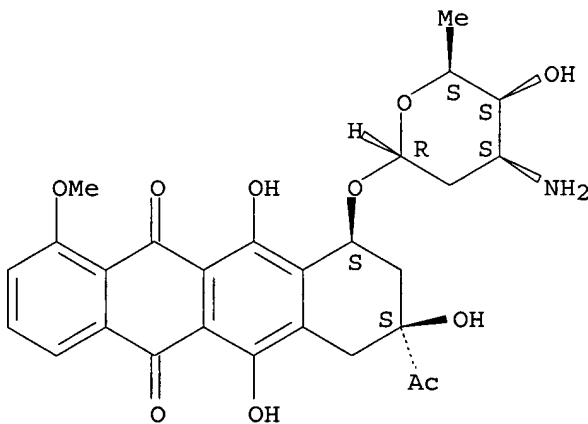
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 9004-54-0, Dextran T-40

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of anti-gastric cancer monoclonal antibody with daunorubicin and methotrexate **conjugate** and its cytotoxicity to gastric cancer cells)

RN 9004-54-0 HCAPLUS

CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L242 ANSWER 80 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:106152 HCAPLUS

DOCUMENT NUMBER: 120:106152

TITLE: Control of the exo and endo pathways of the

Diels-Alder reaction by antibody catalysis

AUTHOR(S): Gouverneur, Veronique E.; Houk, K. N.; de Pascual-Teresa, Beatriz; Beno, Brett; Janda, Kim D.; Lerner, Richard A.

CORPORATE SOURCE: Dep. Mol. Biol., Scripps Res. Inst., La Jolla, CA, 92037, USA

SOURCE: Science (Washington, DC, United States) (1993), 262(5131), 204-8
CODEN: SCIEAS; ISSN: 0036-8075

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 120:106152

ED Entered STN: 05 Mar 1994

AB Catalytic antibodies that control the reaction pathways of the **Diels-Alder cycloaddn.** have been generated. One antibody catalyzes the favored endo and the other the disfavored exo pathway to yield the resp. cis and trans adducts in the enantiomerically pure form. A comparison of the x-ray structure of the hapten with the calculated geometry of the transition structure showed that [2.2.2] bicyclic compds. are excellent mimics of the transition state of the **Diels-Alder** reaction. To achieve catalysis and the high degree of stereoselectivity shown here, the antibody must simultaneously control the conformation of the individual reactants and their relation to each other. In the case of the disfavored process, binding energy must be used to reroute the reaction along a higher energy pathway. The rerouting of reaction pathways has become a major focus of antibody catalysis and other disfavored reactions can be expected to be catalyzed so long as the energy barrier is not extreme. The energy requirements needed for absolute control of all of the stereoisomers of many **Diels-Alder** reactions fall in the energy range (.apprx.20 kcal per mol) deliverable by antibody binding.

CC 22-3 (Physical Organic Chemistry)

ST stereocontrol **Diels Alder** antibody catalysis;
crystallog hapten **Diels Alder** catalyst

IT Kinetics, reaction
(Michaelis-Menten, of antibody catalyzed **Diels-Alder cycloaddns.**)

IT **Diels-Alder** reaction catalysts
(antibodies for stereospecific, kinetics and mechanism with)

IT **Albumins, reactions**
RL: SPN (Synthetic preparation); PREP (Preparation)
(bovine serum, **conjugate** hapten from, for **Diels-Alder** catalyst preparation)

IT Transition state structure
(for **Diels-Alder** reaction of acrylamide with
N-vinylcarbamic acid, hapten mol. structure and)

IT Haptens
RL: SPN (Synthetic preparation); PREP (Preparation)
(for preparation of **Diels-Alder** reaction catalytic
antibodies)

IT **Hemocyanins**
RL: SPN (Synthetic preparation); PREP (Preparation)
(keyhole limpet, **monoconjugate** hapten from, for **Diels-Alder** catalyst preparation)

IT Asymmetric synthesis and induction
(of **Diels-Alder** reaction of acrylamide with
N-vinylcarbamic acid, antibody catalysts for)

IT Michaelis constant
Stereochemistry

- (of antibody catalyzed **Diels-Alder cycloaddns.**)
- IT Molecular structure
(of haptens for **Diels-Alder** reaction catalysts)
- IT **Kinetics of Diels-Alder reaction**
(stereospecific, antibody mediated)
- IT **Diels-Alder reaction**
(stereospecific, antibody mediated, mechanism and transition states for)
- IT Molecular orbital
(RHF, calcn. by, of transition states for **Diels-Alder** reaction of acrylamide with N-vinylcarbamic acid)
- IT Haptens
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, for preparation of **Diels-Alder** reaction catalytic antibodies)
- IT Antibodies
RL: CAT (Catalyst use); USES (Uses)
(monoclonal, catalysts, for **Diels-Alder** reactions, kinetics and mechanism and stereochem. with)
- IT 79-06-1, 2-Propenamide, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(**Diels-Alder** reaction of, with N-vinylcarbamic acid, MO calcn. of mechanism and stereochem. and transition state for)
- IT 34325-66-1, N-Vinylcarbamic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(**Diels-Alder** reaction of, with acrylamide, MO calcn. of mechanism and stereochem. and transition state for)
- IT 2680-03-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(**Diels-Alder** reaction of, with benzyloxyformamido butadienes, kinetics and mechanism and stereochem. of antibody mediated)
- IT 152839-69-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(**Diels-Alder** reaction of, with dimethylacrylamide, kinetics and mechanism and stereochem. of antibody mediated)
- IT 152839-68-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(**Diels-Alder** reaction of, with dimethylacrylamide, mechanism and stereochem. of)
- IT 118379-99-0
RL: PROC (Process)
(conversion of, to **Diels-Alder** reaction catalyst hapten)
- IT 1501-26-4
RL: PROC (Process)
(conversion of, to **Diels-Alder** reaction inhibitor hapten)
- IT 152839-74-2P 152839-75-3P 152886-66-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to hapten)
- IT 152886-67-4
RL: PRP (Properties)
(preparation as **Diels-Alder** reaction catalyst hapten and conjugation of)
- IT 152839-76-4
RL: PRP (Properties)
(preparation as **Diels-Alder** reaction catalyst hapten, conjugation, and mol. structure of)

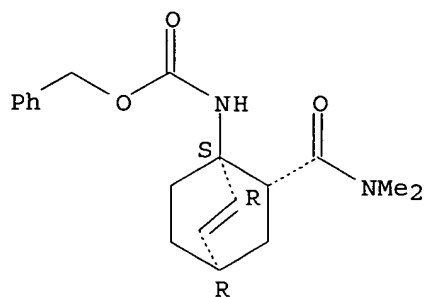
IT 152839-77-5 152886-68-5
 RL: PRP (Properties)
 (preparation as **Diels-Alder** reaction inhibitor hapten and **conjugation** of)

IT 152839-70-8P 152839-71-9P 152839-72-0P
 152839-73-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 152839-75-3P 152886-66-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion of, to hapten)

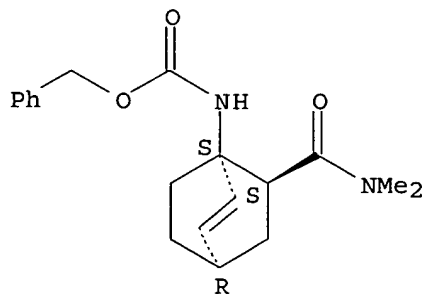
RN 152839-75-3 HCAPLUS
 CN Carbamic acid, [6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]-, phenylmethyl ester, (1 α ,4 β ,6 α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 152886-66-3 HCAPLUS
 CN Carbamic acid, [6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]-, phenylmethyl ester, (1 α ,4 β ,6 β)- (9CI) (CA INDEX NAME)

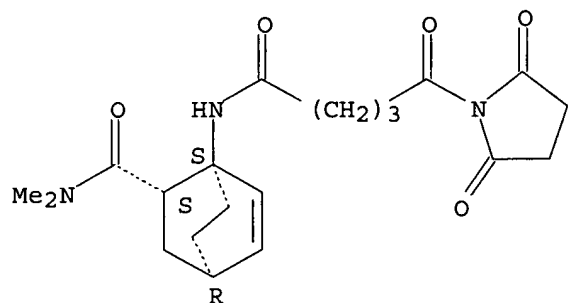
Relative stereochemistry.



IT 152886-67-4
 RL: PRP (Properties)
 (preparation as **Diels-Alder** reaction catalyst hapten and **conjugation** of)

RN 152886-67-4 HCAPLUS
 CN 1-Pyrrolidinepentanamide, N-[(1R,4S,6R)-6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]-8,2,5-trioxo-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 152839-76-4

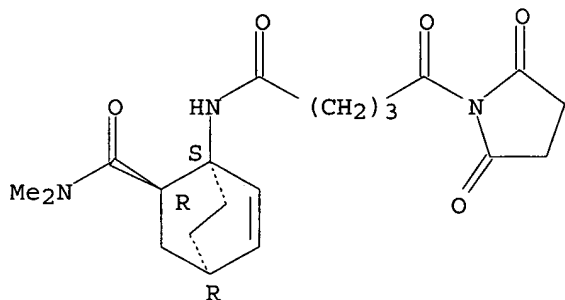
RL: PRP (Properties)

(preparation as **Diels-Alder** reaction catalyst hapten, **conjugation**, and mol. structure of)

RN 152839-76-4 HCAPLUS

CN 1-Pyrrolidinepentanamide, N-[(1R,4S,6S)-6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]-8,2,5-trioxo-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 152839-77-5 152886-68-5

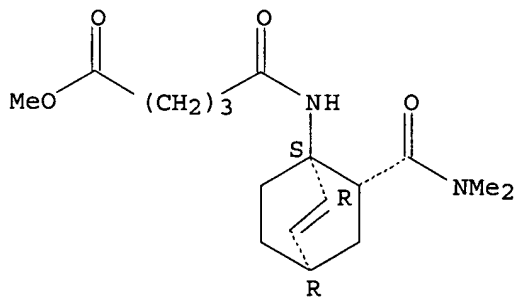
RL: PRP (Properties)

(preparation as **Diels-Alder** reaction inhibitor hapten and **conjugation** of)

RN 152839-77-5 HCAPLUS

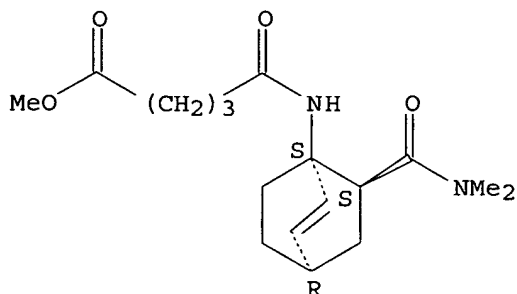
CN Pentanoic acid, 5-[[6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]amino]-5-oxo-, methyl ester, (1 α ,4 β ,6 α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



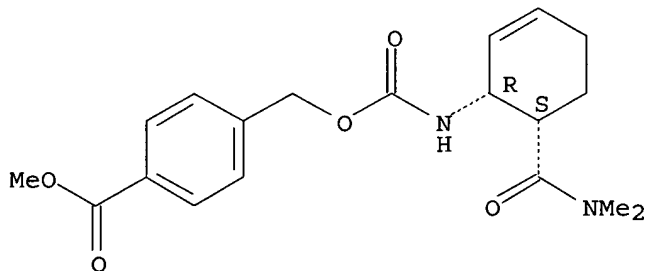
RN 152886-68-5 HCAPLUS
 CN Pentanoic acid, 5-[[6-[(dimethylamino)carbonyl]bicyclo[2.2.2]oct-2-en-1-yl]amino]-5-oxo-, methyl ester, (1 α ,4 β ,6 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



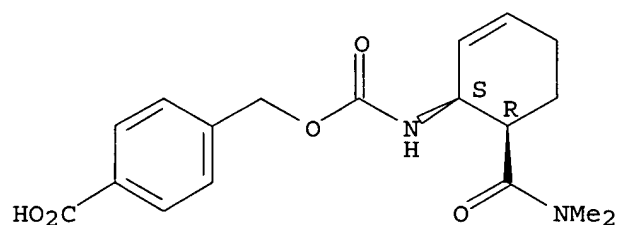
IT 152839-70-8P 152839-71-9P 152839-72-0P
 152839-73-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 152839-70-8 HCAPLUS
 CN Benzoic acid, 4-[[[6-[(dimethylamino)carbonyl]-2-cyclohexen-1-yl]amino]carbonyl]oxy)methyl]-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 152839-71-9 HCAPLUS
 CN Benzoic acid, 4-[[[6-[(dimethylamino)carbonyl]-2-cyclohexen-1-yl]amino]carbonyl]oxy)methyl]-, monosodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

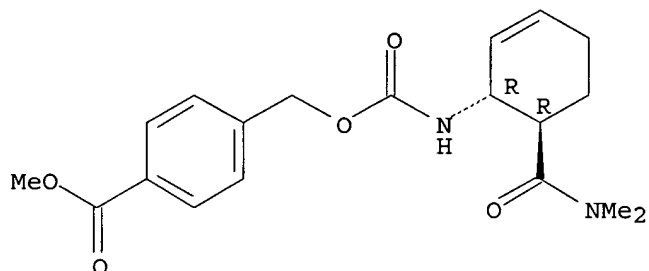


● Na

RN 152839-72-0 HCAPLUS

CN Benzoic acid, 4-[[[6-[(dimethylamino)carbonyl]-2-cyclohexen-1-yl]amino]carbonyl]oxy]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

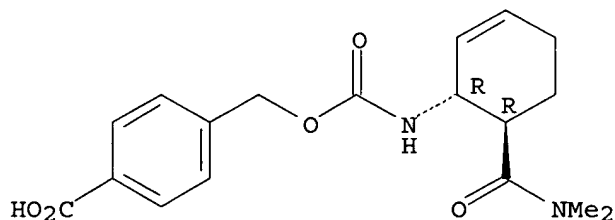
Relative stereochemistry.



RN 152839-73-1 HCAPLUS

CN Benzoic acid, 4-[[[6-[(dimethylamino)carbonyl]-2-cyclohexen-1-yl]amino]carbonyl]oxy]methyl]-, monosodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● Na

L242 ANSWER 81 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:595244 HCAPLUS

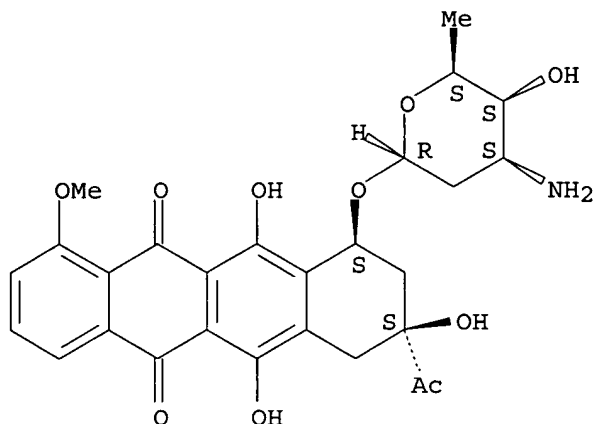
DOCUMENT NUMBER: 119:195244

TITLE: In vivo inhibition of hepatoma growth by anti-ferritin

AUTHOR(S): IgG-**dextran**-daunomycin immunoconjugate
Chen, Li; Li, Xiqiang; Chen, Dongquan; Wang, Renzhi
CORPORATE SOURCE: Inst. Radiat. Med., Acad. Mil. Med. Sci., Beijing,
Peop. Rep. China
SOURCE: Junshi Yixue Kexueyuan Yuankan (1993),
17(3), 199-201
CODEN: JYKYEL; ISSN: 1000-5501
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 13 Nov 1993
AB Sheep anti-human ferritin IgG (AHFI) was chemical linked to daunomycin (Dau)
via a mediator **dextran** T40. The antigen-binding activity of
AHFI was preserved in AHFI-Dex-Dau (tested by RIA method). The in vivo
model of human hepatoma-engrafted Balb/c nude mice was established and
used in the study of inhibitory effect of AHFI-Dex-Dau on tumor growth.
The results showed that AHFI-Dex-Dau, compared with (1) PBS, (2) AHFI
alone, (3) Dau alone and (4) control conjugate (normal sheep IgG-Dex-Dau);
was less toxic and more effective in tumor growth inhibition.
CC 1-6 (Pharmacology)
Section cross-reference(s): 63
ST daunomycin ferritin antibody **conjugate** hepatoma inhibitor
IT Ferritins
RL: SPN (Synthetic preparation); PREP (Preparation)
(antibody to, **conjugate** with daunomycin, preparation of, as
hepatoma inhibitor, of humans)
IT **Antibodies**
RL: SPN (Synthetic preparation); PREP (Preparation)
(to ferritin, **conjugate** with daunomycin, prepn of, as
hepatoma inhibitor, of humans)
IT **Immunoglobulins**
RL: SPN (Synthetic preparation); PREP (Preparation)
(G, to ferritin, **conjugate** with daunomycin, prepn
of, as hepatoma inhibitor, of humans)
IT Neoplasm inhibitors
(hepatoma, daunomycin-anti-ferritin antibody **conjugate** as, of
humans)
IT Liver, neoplasm
(hepatoma, inhibitors, daunomycin-anti-ferritin antibody
conjugate as, of humans)
IT **Pharmaceutical dosage forms**
(immunoconjugates, anti-ferritin IgG-**dextran**-daunomycin,
preparation of, as hepatoma inhibitor, of humans)
IT **9004-54-0DP, Dextran, conjugate** with
daunomycin anti-ferritin antibody **20830-81-3DP**, Daunomycin,
conjugate with anti-ferritin antibody and **dextran**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hepatoma inhibitor, of humans)
IT **9004-54-0DP, Dextran, conjugate** with
daunomycin anti-ferritin antibody **20830-81-3DP**, Daunomycin,
conjugate with anti-ferritin antibody and **dextran**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hepatoma inhibitor, of humans)
RN 9004-54-0 HCAPLUS
CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 20830-81-3 HCAPLUS
CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 82 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1992:201112 HCAPLUS
 DOCUMENT NUMBER: 116:201112
 TITLE: Polyalkylene oxide-amino acid copolymers as drug carriers and charged copolymers based thereon
 INVENTOR(S): Zalipsky, Samuel; Bolikal, Durgadas; Nathan, Aruna; Kohn, Joachim Benjamin
 PATENT ASSIGNEE(S): Enzon, Inc., USA
 SOURCE: PCT Int. Appl., 97 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9200748	A1	19920123	WO 1991-US4797	19910708 <--
W: AU, CA, HU, JP, SU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
JP 05508879	T2	19931209	JP 1991-512668	19910708 <--
PRIORITY APPLN. INFO.:			US 1990-549494	A 19900706 <--
			US 1991-726301	A 19910705 <--
			WO 1991-US4797	W 19910708 <--

ED Entered STN: 16 May 1992
 AB Copolymers of polyalkylene oxides and amino acids or **peptide** sequences are disclosed, which amino acids or **peptide** sequences have pendant functional groups that are capable of being conjugated with pharmaceutically active compds. for drug delivery systems and crosslinked to form polymer matrixes as **hydrogel** membranes. The copolymers can also be formed into conductive materials by combination with electrolyte salts. Thus, polyethylene glycol-lysine copolymer was treated with N-hydroxysuccinimide and dicyclohexyl carbodiimide. Cephradine dissolved in a water-dioxane mixture was reacted with the derivatized polyethylene glycol-lysine copolymer to prepare a conjugate.
 IC A61K031-765
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 9
 ST PEG amino acid drug **conjugate**; **hydrogel**

polyoxyalkylene amino acid pharmaceutical; electrolyte PEG amino acid pharmaceutical

IT **Pharmaceutical dosage forms**

(drug **conjugates** with modified polyoxyalkylene-amino acid copolymers in)

IT **Gels**

(hydro-, of crosslinked polyoxyalkylene-amino acid copolymers, for medical goods)

IT **Antibodies**

RL: BIOL (Biological study)

(**monoclonal, conjugates** with modified polyoxyalkylene-amino acid copolymers, for effective delivery)

IT 50-78-2D, Aspirin, derivs., **conjugates** with PEG-amino acid copolymers 51-55-8D, Atropine, derivs., **conjugates** with PEG-amino acid copolymers 56-54-2D, Quinidine, derivs., **conjugates** with PEG-amino acid copolymers 59-46-1D, Procaine, derivs., **conjugates** with PEG-amino acid copolymers 59-67-6D, Nicotinic acid, derivs., **conjugates** with PEG-amino acid copolymers 87-08-1D, Penicillin V, **conjugates** with PEG-amino acid copolymers 130-95-0D, Quinine, derivs., **conjugates** with PEG-amino acid copolymers 148-82-3D, Melphalan, derivs., **conjugates** with PEG-amino acid copolymers 153-61-7D, Cephalothin, derivs., **conjugates** with PEG-amino acid copolymers 299-42-3D, Ephedrine, derivs., **conjugates** with PEG-amino acid copolymers 305-03-3D, Chlorambucil, derivs., **conjugates** with PEG-amino acid copolymers 474-25-9D, derivs., **conjugates** with PEG-amino acid copolymers 481-42-5D, Plumbagin, derivs., **conjugates** with PEG-amino acid copolymers 19660-77-6D, Chlorin e6, derivs., **conjugates** with PEG-amino acid copolymers 20830-75-5D, Digoxin, derivs., **conjugates** with PEG-amino acid copolymers 20830-81-3D, derivs., **conjugates** with PEG-amino acid copolymers 23214-92-8D, Adriamycin, derivs., **conjugates** with PEG-amino acid copolymers 59277-89-3D, Acyclovir, derivs., **conjugates** with PEG-amino acid copolymers
RL: BIOL (Biological study)

(as effective drug delivery forms)

IT 140913-01-5P

RL: PRP (Properties); PREP (Preparation)

(preparation and **conjugation** of, with drugs)

IT 25190-06-1DP, Poly(butylene glycol), polymers with amino acid, drug **conjugates** 25322-68-3DP, polymers with amino acid, drug **conjugates** 25322-69-4DP, Polypropylene glycol, polymers with amino acid, drug **conjugates** 38821-53-3DP, Cephadrine, **conjugates** with PEG-amino acid copolymers 65607-79-6DP, Poly(isobutylene glycol), polymers with amino acid, drug **conjugates** 110882-23-0DP, Acyclovir succinate, **conjugates** with PEG-lysine copolymer carbate reaction products 140913-58-2DP, reaction products with cephadrine
RL: PREP (Preparation)

(preparation of, as effective drug delivery forms)

IT 58-22-0DP, Testosterone, derivs., **conjugates** with PEG-amino acid copolymers

RL: PREP (Preparation)

(preparation of, for effective drug delivery)

IT 20830-81-3D, derivs., **conjugates** with PEG-amino acid copolymers

RL: BIOL (Biological study)

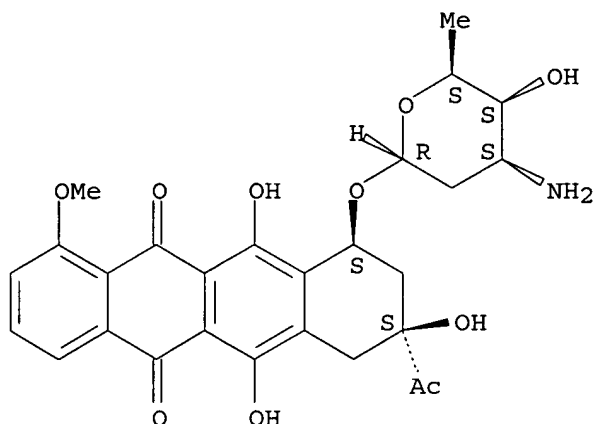
(as effective drug delivery forms)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-

hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 83 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:208023 HCAPLUS

DOCUMENT NUMBER: 120:208023

TITLE: Enhanced antitumor activity of daunomycin
conjugated with antigastric cancer monoclonal
antibody MGb2

AUTHOR(S): Li, Song; Zhang, Xueyong; Qiao, Taidong; Chen, Xitao;
Zhang, Suyin; Chen, Lingji

CORPORATE SOURCE: Lab. Gastroenterol., Xijing Hosp., Shaanxi, 710032,
Peop. Rep. China

SOURCE: Oncology Research (1992), 4(11-12), 447-53
CODEN: ONREE8; ISSN: 0965-0407

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Apr 1994

AB In the present study, an antigastric cancer monoclonal antibody, MGb2, was chosen to prepare an antibody-daunomycin conjugate. Daunomycin was modified by cis-aconitic anhydride, and the derivative was linked to antibody, a carbodiimide reagent being used to produce **peptide** bonding. Four to 5 mols. of daunomycin were specifically bound per mol. of antibody, without severely impairing the pharmacol. activity of daunomycin and with minimal loss of antibody activity. A tetrazolium dye colorimetric assay indicated that the MGb2-daunomycin conjugate exhibited selected cytotoxicity against human gastric cancer cells SGC-7901 in vitro. The tumor localization of BALB/c nude mice showed that the specific conjugate could recognize the tumor as efficiently as the unconjugated antibody. MGb2-daunomycin conjugates could significantly suppress the growth of human gastric carcinoma GAI in inoculated under the renal capsules of BALB/c nude mice. I.p. injection of MGb2-daunomycin conjugate twice a week for 3 wk at a dose of 1 mg/kg of drug gave a tumor inhibition rate of 91.58%, far more effective than free daunomycin or an irrelevant conjugate.

CC 1-6 (Pharmacology)

Section cross-reference(s): 63

ST daunomycin immunoconjugate gastric cancer inhibitor; antibody daunomycin
conjugate gastric cancer inhibitor

IT **Pharmaceutical dosage forms**

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IT      Stomach, neoplasm
        (inhibitors, daunomycin conjugates with antigastric cancer
        monoclonal antibodies as, against human cells in laboratory animals)
IT      Antibodies
        RL: BIOL (Biological study)
        (monoclonal, to gastric cancer of humans, conjugates
        with daunomycin, antitumor activity of, in laboratory animals)
IT      Neoplasm inhibitors
        (stomach, daunomycin conjugates with antigastric cancer
        monoclonal antibodies as, against human cells in laboratory animals)
IT      20830-81-3DP, Daunomycin, conjugates with antigastric
        cancer monoclonal antibodies
        RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and gastric carcinoma of humans inhibition by, in laboratory
animals)
IT      20830-81-3DP, Daunomycin, conjugates with antigastric
        cancer monoclonal antibodies
        RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and gastric carcinoma of humans inhibition by, in laboratory
animals)
RN      20830-81-3   HCAPLUS
CN      5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

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The chemical structure shows a central anthracene core substituted at positions 6, 7, 8, and 9. At position 6, there is a methoxy group (-OMe). At position 7, there is a hydroxyl group (-OH) pointing upwards. At position 8, there is a hydroxyl group (-OH) pointing downwards. At position 9, there is a carboxylic acid group (-COOH) pointing downwards. Attached to the 10-position of the anthracene ring is a side chain consisting of a six-membered ring containing two sulfur atoms (S), one oxygen atom (O), and a methyl group (Me). This side chain also features an amino group (-NH₂) and a hydroxyl group (-OH).

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DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 02 Mar 1993

AB Daunomycin was covalently bound via a **dextran** bridge to monoclonal antibodies against the differentiated antigens-Zh805 of myeloid cells. The activities of the specific antibodies, daunomycin and the conjugates were measured by complement-mediated cytotoxicity, indirect immunofluorescence staining and inhibition of 3H-TdR incorporation. The data showed that the conjugates retained more than 80% original antibody activities. The conjugation of daunomycin to antibodies did not cause a detectable loss of antibody specificity and of toxicity of daunomycin. A significant and selective cytotoxicity against HL-60 cells was observed after 8 h incubation of the cells with the conjugates at an antibody concentration of 20 µg/mL. In a 48 h incubation assay the conjugates exhibited a concentration-dependent cytotoxicity against HL-60 cells. After incubation

with

the conjugates an antibody concentration of 20 µg/mL antibody for 20 h, HL-60 cells were selectively killed by >80%. The data showed that daunomycin conjugated to the myeloid cell-specific antibodies may be a potential antileukemic agent.

CC 1-6 (Pharmacology)

ST daunomycin myeloid cell antibody **conjugate** antileukemicIT **Pharmaceutical dosage forms**

(immunoconjugates, daunomycin with anti-myeloid cell monoclonal antibody, antileukemic activity of, in human cells)

IT Neoplasm inhibitors

(leukemia, daunomycin **conjugates** with anti-myeloid cell monoclonal antibody, in human cells)

IT **Antibodies**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**monoclonal, conjugates**, with daunomycin, against myeloid cells, antileukemic activity of, in human cells)

IT Hematopoietic precursor cell

(myeloid, monoclonal antibody against, daunomycin **conjugates** with, antileukemic activity of, in human cells)

IT **20830-81-3D**, Daunomycin, anti-myeloid cell monoclonal antibody **conjugates**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antileukemic activity of, in human cells)

IT **20830-81-3D**, Daunomycin, anti-myeloid cell monoclonal antibody **conjugates**

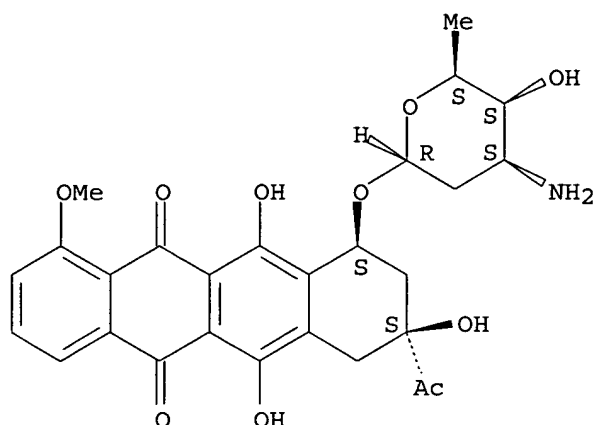
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antileukemic activity of, in human cells)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9100289	A2	19910110	WO 1990-US3582	19900622 <--
WO 9100289	A3	19910404		
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 5059421	A	19911022	US 1989-370650	19890623 <--
CA 2058940	AA	19901224	CA 1990-2058940	19900622 <--
CA 2058940	C	20000509		
AU 9059399	A1	19910117	AU 1990-59399	19900622 <--
AU 642149	B2	19931014		
EP 478715	A1	19920408	EP 1990-917873	19900622 <--
EP 478715	B1	19960403		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 04506518	T2	19921112	JP 1990-509624	19900622 <--
JP 3032004	B2	20000410		
AT 136211	E	19960415	AT 1990-917873	19900622 <--
ES 2085920	T3	19960616	ES 1990-917873	19900622 <--
CA 2296884	C	20010123	CA 1990-2296884	19900622 <--
RITY APPLN. INFO.:			US 1989-370650	A 19890623 <--
			US 1989-412779	A 19890926 <--
			US 1985-749161	B2 19850626 <--
			US 1985-759419	A2 19850726 <--
			US 1985-811037	B2 19851218 <--
			US 1986-941913	A2 19861215 <--
			CA 1990-2058940	A3 19900622 <--

WO 1990-US3582

A 19900622 <--

ED Entered STN: 23 Sep 1991

AB A method is provided for synthesis of a substantially pure reactive lipid including, e.g. N-[4-(p-maleimidophenyl)-butyryl]phosphatidylethanolamine (MPB-PE) and related compns. The compns. are useful as coupling agents and may be incorporated into liposomes and subsequently coupled to **proteins**, cofactors, etc. A preferred coupling method to disclosed, as are **protein** conjugates. Also provided is a method of preparing sized **protein**-liposome conjugate compns. The **protein**-liposome conjugates are preferably 75-200 nm in size. The liposomes of the invention may have a trans-membrane potential across the membrane and may be dehydrated. The composition may contain ionizable bioactive agents, e.g. antineoplastic agents, and may be used in diagnostic assays. Thus, dipalmitoyl PE(DPPE) was reacted with N-succinimidyl-4-(p-maleimidophenyl)butyrate to form MPB-DPPE, which was then used in liposome preparation. Streptavidin was thiolated, then coupled with the liposomes. Incubation of liposome-streptavidin conjugates (containing encapsulated carboxyfluorescein) with a blood leukocyte sample prelabeled with a biotinylated monoclonal antibody (MAb) specific for B-cells or for T-cells gave fluorescein labeling of approx. 20% or approx. 90%, resp., of the total lymphocyte population, which was consistent with the expected cell distribution of the antigens defined by the MABs.

IC ICM C07K

CC 9-14 (Biochemical Methods)

Section cross-reference(s): 1, 63

ST lipid deriv liposome **protein conjugate**;
maleimidophenylbutyryl phosphatidylethanolamine liposome **protein conjugate**; butyryl maleimidophenyl ethanolamine phosphatidyl liposome; streptavidin liposome **conjugate**; T B lymphocyte liposome label; diagnosis liposome **protein conjugate**;
antineoplastic liposome **protein conjugate**

IT Erythrocyte
(antibody to, biotinylated, **conjugates** with
streptavidin-derivatized liposomes)

IT **Antibodies**

RL: ANST (Analytical study)
(**conjugates** with liposomes, maleimide group-containing
crosslinking agent-derivatized lipid in)

IT Polycarbonates, uses and miscellaneous

RL: USES (Uses)
(filters, in aggregated liposome-**protein conjugate**
extrusion)

IT **Carbohydrates and Sugars, uses and miscellaneous**

RL: SPN (Synthetic preparation); PREP (Preparation)
(in **protein**-liposome **conjugate** dehydration for
protein-liposome **conjugate** preparation)

IT Diagnosis

Therapeutics
(liposome-**protein conjugates** for, maleimide
group-containing crosslinking agent-derivatized lipid in)

IT Crosslinking agents

(maleimide group containing, lipid reaction products, for liposome-
protein conjugate preparation)

IT Extrusion

(of aggregated liposome-**protein conjugates**, in
liposome-**protein conjugate** preparation)

IT Dehydration, chemical

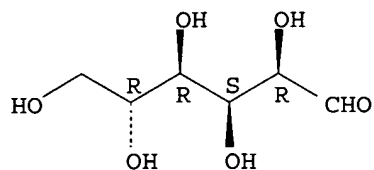
(of **protein**-liposome **conjugate**, in **protein**
-liposome **conjugate** preparation)

IT Neoplasm inhibitors

- (pharmaceutical liposome-**protein conjugates** containing, maleimide group-containing crosslinking agent-derivatized lipid in relation to)
- IT Filters and Filtration apparatus
(polycarbonate, in aggregated liposome-**protein conjugate** extrusion)
- IT Liposome
(with maleimide group-containing crosslinking agent-derivatized lipid, for liposome-**protein conjugate** preparation)
- IT **Proteins, specific or class**
RL: ANST (Analytical study)
(A, **conjugates**, biotinylated, with streptavidin-derivatized liposomes)
- IT Lymphocyte
(B-, streptavidin-liposome **conjugate** with entrapped carboxyfluorescein reactivity with, labeled with biotinylated monoclonal antibody)
- IT **Immunoglobulins**
RL: ANST (Analytical study)
(E, **conjugates** with liposomes, maleimide group-containing **crosslinking** agent-derivatized lipid in)
- IT **Immunoglobulins**
RL: ANST (Analytical study)
(G, **conjugates** with liposomes, maleimide group-containing **crosslinking** agent-derivatized lipid in)
- IT Lymphocyte
(T-, streptavidin-liposome **conjugate** with entrapped carboxyfluorescein reactivity with, labeled with biotinylated monoclonal antibody)
- IT Enzymes
Proteins, specific or class
RL: ANST (Analytical study)
(**conjugates**, with liposomes, maleimide group-containing **crosslinking** agent-derivatized lipid in)
- IT Phosphatidylethanolamines
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, with maleimide group-containing crosslinking agents, for **protein-liposome conjugate** preparation)
- IT **Oligosaccharides**
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-, in **protein-liposome conjugate** dehydration for **protein-liposome conjugate** preparation)
- IT **Pharmaceutical dosage forms**
(liposomes, of **protein-liposome conjugates** with maleimide group-containing crosslinking agent-derivatized lipid)
- IT Electric potential
(membrane, **protein-liposome conjugate** with derivatized lipid having)
- IT **Antibodies**
RL: ANST (Analytical study)
(**monoclonal, conjugates** with liposomes, maleimide group-containing **crosslinking** agent-derivatized lipid in)
- IT Lipids, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction products, with maleimide group-containing crosslinking agent, for liposome-**protein conjugate** preparation)
- IT 67-66-3, Chloroform, biological studies 67-68-5, DMSO, biological studies 68-12-2, biological studies 75-09-2, Methylene chloride, biological studies 109-99-9, THF, biological studies 123-91-1, 1,4-Dioxane, biological studies 127-19-5

- RL: ANST (Analytical study)
 (as nonnucleophilic solvent, in reactive lipid preparation, **protein**
 -liposome **conjugate** preparation in relation to)
- IT 109-85-3D, 2-Methoxyethylamine, succinimidyl maleimidophenylbutyrate
 reaction products 135702-24-8 135702-25-9
 RL: PRP (Properties)
 (characterization of, reactive lipid for liposome-**protein**
conjugate in relation to)
- IT 4537-76-2D, Distearoyl phosphatidylethanolamine, reaction products with
 maleimide group-containing crosslinking agents 5681-36-7D, Dipalmitoyl
 phosphatidylethanolamine, reaction products with maleimide group-containing
 crosslinking agents 20255-95-2D, Dimyristoyl phosphatidylethanolamine,
 reaction products with maleimide group-containing crosslinking agents
 79886-55-8D, lipid reaction products
 RL: ANST (Analytical study)
 (for liposome-**protein conjugate** preparation)
- IT 8050-40-6D, Cellit, **conjugates** with FITC, reaction products with
 strptavidin 27072-45-3D, **conjugates** with cellite, reaction
 products with strptavidin 68181-17-9D, N-Succinimidyl-3-(2-
 pyridyldithio)propionate, strptavidin reaction products
 RL: ANST (Analytical study)
 (in liposome-streptavidin-**conjugate** preparation with reactive
 lipid)
- IT 50-99-7, Glucose, biological studies 57-50-1, Sucrose,
 biological studies 63-42-3, Lactose 69-79-4, Maltose
 99-20-7, Trehalose 9004-54-0, **Dextran**,
 biological studies
 RL: ANST (Analytical study)
 (in **protein**-liposome **conjugate** dehydration for
protein-liposome **conjugate** preparation)
- IT 58-85-5D, Biotin, liposome **conjugates** 9013-20-1D,
 Streptavidin, liposome **conjugates**
 RL: ANST (Analytical study)
 (maleimide group-containing crosslinking agent-derivatized lipid in)
- IT 50-18-0, Cyclophosphamide 57-22-7, Vincristine 865-21-4, Vinblastine
 15663-27-1, Cisplatinum 20830-81-3 23214-92-8, Doxorubicin
 RL: ANST (Analytical study)
 (pharmaceutical liposome-**protein conjugates** containing,
 maleimide group-containing **crosslinking** agent-derivatized lipid
 in relation to)
- IT 9001-78-9D, biotinylated, **conjugates** with streptavidin-
 derivatized liposomes 11028-71-0D, Concanavalin A, biotinylated,
conjugates with streptavidin-derivatized liposomes
 RL: ANST (Analytical study)
 (reactive lipid preparation for)
- IT 72088-94-9, Carboxyfluorescein
 RL: ANST (Analytical study)
 (streptavidin-liposome **conjugate** with entrapped, reactivity
 with leukocytes labeled with biotinylated monoclonal antibodies to B-
 and T-cells)
- IT 50-99-7, Glucose, biological studies 57-50-1, Sucrose,
 biological studies 63-42-3, Lactose 69-79-4, Maltose
 99-20-7, Trehalose 9004-54-0, **Dextran**,
 biological studies
 RL: ANST (Analytical study)
 (in **protein**-liposome **conjugate** dehydration for
protein-liposome **conjugate** preparation)
- RN 50-99-7 HCAPLUS
 CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

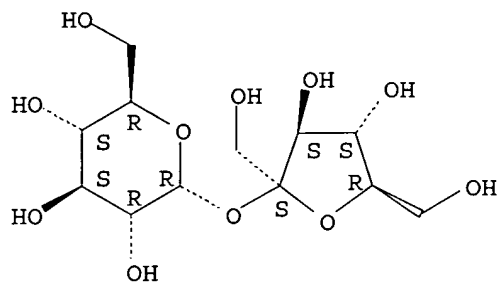
Absolute stereochemistry.



RN 57-50-1 HCAPLUS

CN α -D-Glucopyranoside, β -D-fructofuranosyl (9CI) (CA INDEX NAME)

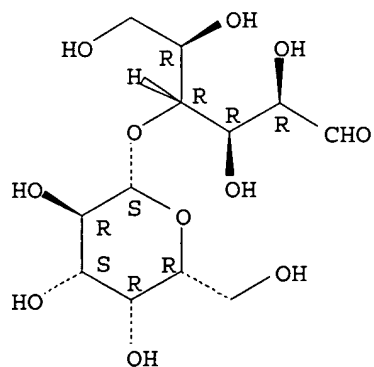
Absolute stereochemistry.



RN 63-42-3 HCAPLUS

CN D-Glucose, 4-O- β -D-galactopyranosyl- (9CI) (CA INDEX NAME)

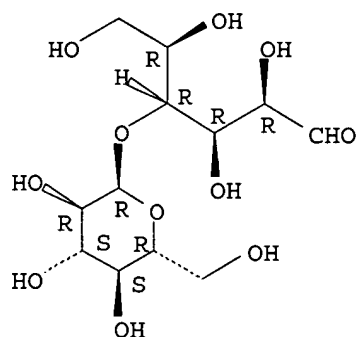
Absolute stereochemistry. Rotation (+).



RN 69-79-4 HCAPLUS

CN D-Glucose, 4-O- α -D-glucopyranosyl- (6CI, 9CI) (CA INDEX NAME)

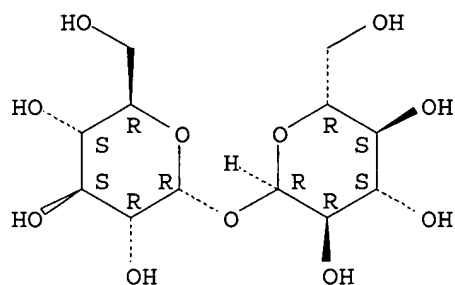
Absolute stereochemistry.



RN 99-20-7 HCAPLUS

CN α -D-Glucopyranoside, α -D-glucopyranosyl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 9004-54-0 HCAPLUS

CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 20830-81-3

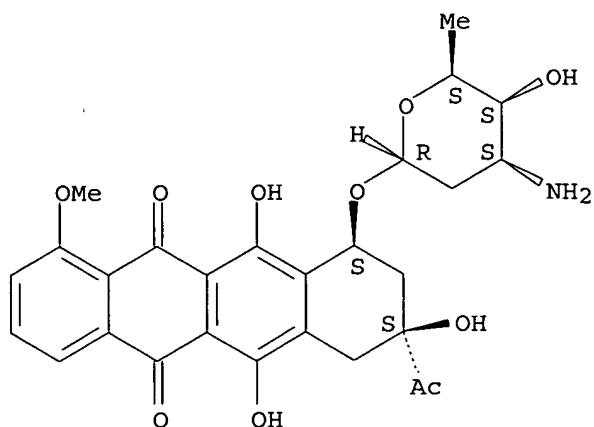
RL: ANST (Analytical study)

(pharmaceutical liposome-**protein conjugates** containing,
maleimide group-containing **crosslinking** agent-derivatized lipid
in relation to)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 86 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:214841 HCAPLUS

DOCUMENT NUMBER: 116:214841

TITLE: Preparation of anthracycline immunoconjugates as neoplasm inhibitors

INVENTOR(S): Kaneko, Takushi; Willner, David; Monkovic, Ivo; Greenfield, Robert S.; Braslawsky, Gary R.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA

SOURCE: Eur. Pat. Appl., 45 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 457250	A2	19911121	EP 1991-107737	19910513 <--
EP 457250	A3	19920701		
EP 457250	B1	19990714		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5137877	A	19920811	US 1990-522996	19900514 <--
US 5137877	B1	19960130		
AU 9174038	A1	19911114	AU 1991-74038	19910403 <--
AU 646850	B2	19940310		
FI 9102285	A	19911115	FI 1991-2285	19910510 <--
FI 100718	B1	19980213		
JP 04352765	A2	19921207	JP 1991-199757	19910510 <--
JP 3010319	B2	20000221		
ZA 9103591	A	19920226	ZA 1991-3591	19910513 <--
AT 182141	E	19990715	AT 1991-107737	19910513 <--
ES 2134761	T3	19991016	ES 1991-107737	19910513 <--
CA 2042503	AA	19911115	CA 1991-2042503	19910514 <--
CA 2042503	C	20020723		
US 5349066	A	19940920	US 1992-865062	19920408 <--
JP 2000026404	A2	20000125	JP 1999-131583	19990512 <--
JP 3234980	B2	20011204		
GR 3031402	T3	20000131	GR 1999-402493	19990930 <--
PRIORITY APPLN. INFO.:			US 1990-522996	A 19900514 <--
			JP 1991-199757	A3 19910510 <--
OTHER SOURCE(S):	MARPAT 116:214841			

ED Entered STN: 31 May 1992
AB Anthracycline derivs. I [R1 = NHCONH(CH2)nSSR8, NHCONHNHCONH(CH2)nSSR8, NHCSNH(CH2)mCH:CH(CH2)nSSR8, NHCO2(CH2)nSSR8, NHArCONH(CH2)nSSR8, etc.; m, n = 1-10; R8 = (substituted) 2-pyridyl, -phenyl; Ar = phenylene; R2 = Me, CH2OH, CH2OCO(CH2)3Me, CH2OCOCH(OEt)2; R3 = OMe, OH, H; R4 = NH2 NHCOCF3, 4-morpholinyl, 3-cyano-4-morpholinyl, 1-piperidinyl, NHCH2Ph, N(CH2Ph)2, etc.; R5 = OH, tetrahydropyranyloxy, H; R6 = OH, H; R6 ≠ OH when R5 = OH or tetrahydropyranyloxy], related compds., and their conjugates with ligands and antibodies, were prepared Thus, 1-amino-4-[(2-pyridinyl)dithio]-2-butene-HCl (preparation given) was treated with di(2-pyridyl) thionocarbonate and the product formed was condensed with Me3CO2CNHNH2. Deprotection of the resulting product by CF3CO2H gave N-[4-(2-pyridinyl)dithio]-2-butenyl]hydrazinecarbothioamide. This was condensed with adriamycin-HCl to give adriamycin 13-N-4-[(2-pyridinyl)dithio]-2-butenylhydrazinecarbothioamide thiosemicarbazene-HCl (II). The immunoconjugate of II with thiolated monoclonal antibody 5E9 had IC50 of 3.0 + 101-7M against Burkitt's lymphoma cells.

IC ICM C07D213-71
ICS A61K031-44; C07C323-44; A61K031-70; A61K031-175; C07H015-24
CC 33-7 (Carbohydrates)
Section cross-reference(s): 1

ST anthracycline **conjugate** prepn immunoconjugate anticancer;
adriamycin **conjugate** prepn immunoconjugate anticancer; antibody
anthracycline immunoconjugate anticancer

IT Agglutinins and Lectins
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, with anthracyclines derivs., preparation of, as
neoplasm inhibitors)

IT Animal growth regulators
RL: SPN (Synthetic preparation); PREP (Preparation)
(blood platelet-derived growth factors, **conjugates**, with
anthracyclines derivs., preparation of, as neoplasm inhibitors)

IT **Transferrins**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, with anthracycline derivs., preparation of, as
neoplasm inhibitors)

IT **Carbohydrates and Sugars, compounds**
Steroids, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, with anthracyclines derivs., preparation of, as
neoplasm inhibitors)

IT Anthracyclines
RL: SPN (Synthetic preparation); PREP (Preparation)
(**conjugates**, with monoclonal antibodies, preparation of, as
neoplasm inhibitors)

IT **Pharmaceutical dosage forms**
(immunoconjugates, from anthracyclines and monoclonal antibodies,
preparation of, as neoplasm inhibitors)

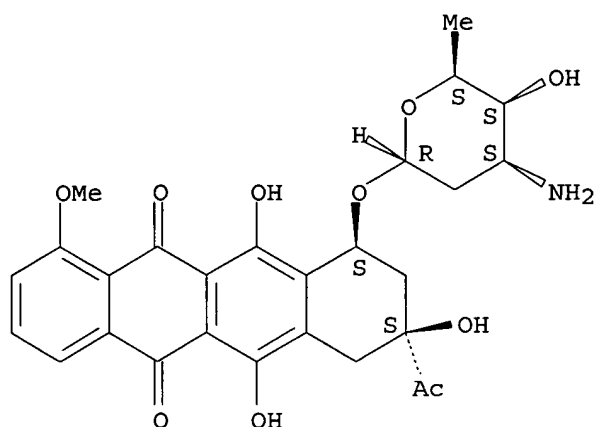
IT Lymphokines and Cytokines
RL: SPN (Synthetic preparation); PREP (Preparation)
(interleukin 2, **conjugates**, with anthracyclines derivs.,
preparation of, as neoplasm inhibitors)

IT Lymphokines and Cytokines
RL: SPN (Synthetic preparation); PREP (Preparation)
(interleukin 6, **conjugates**, with anthracyclines derivs.,
preparation of, as neoplasm inhibitors)

IT **Antibodies**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**monoclonal, conjugates**, with anthracycline
derivs., preparation of, as neoplasm inhibitors)

- IT Animal growth regulators
RL: SPN (Synthetic preparation); PREP (Preparation)
(α -transforming growth factors, **conjugates**, with anthracycline derivs., preparation of, as neoplasm inhibitors)
- IT Animal growth regulators
RL: SPN (Synthetic preparation); PREP (Preparation)
(β -transforming growth factors, **conjugates**, with anthracycline derivs., preparation of, as neoplasm inhibitors)
- IT 9002-76-0DP, Gastrin, **conjugates** with anthracyclines
9004-10-8DP, Insulin, **conjugates** with anthracyclines
31362-50-2DP, Bombesin, **conjugates** with anthracyclines
62229-50-9DP, EGF, **conjugates** with anthracyclines
67763-96-6DP, Insulin-like growth factor I, **conjugates** with anthracyclines 67763-97-7DP, Insulin-like growth factor II, **conjugates** with anthracyclines 80043-53-4DP, Gastrin-releasing **peptide, conjugates** with anthracyclines
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as anticancer agents)
- IT 140851-75-8DP, **conjugates** with monoclonal antibodies
140851-76-9DP, **conjugates** with monoclonal antibodies
140851-77-0DP, **conjugates** with monoclonal antibodies
140851-78-1DP, **conjugates** with monoclonal antibodies
140851-79-2DP, **conjugates** with monoclonal antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as anticancer immunoconjugates)
- IT 60-24-2, 2-Mercaptoethanol 75-44-5, Phosgene 156-57-0,
2-Aminoethanethiol hydrochloride 302-01-2, Hydrazine, reactions
530-62-1 619-67-0 870-46-2, tert-Butyl carbazate 2637-34-5,
2-Mercaptopyridine 2757-23-5, Chlorocarbonylsulfenyl chloride
6974-12-5, 1,4-Dibromo-2-butene 10387-40-3, Potassium thioacetate
20830-81-3 23214-92-8, Adriamycin 24424-99-5, Di-tert-butyl
pyrocarbonate **25316-40-9**, Adriamycin hydrochloride 26555-40-8,
Methoxycarbonylsulfenyl chloride 32315-10-9, Triphosgene 50935-04-1
56124-62-0, AD-32 56420-45-2, Epirubicin 58957-92-9 63521-85-7,
Esorubicin 66211-92-5 68181-17-9, SPDP 72496-41-4 79886-55-8
88254-07-3 96989-50-3, Di-2-pyridyl thionocarbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of anticancer **immunoconjugates**)
- IT 62229-50-9DP, Epidermal growth factor, **conjugates**
RL: SPN (Synthetic preparation); PREP (Preparation)
(with anthracycline derivs., preparation of, as neoplasm inhibitors)
- IT **20830-81-3 25316-40-9**, Adriamycin hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of anticancer **immunoconjugates**)
- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

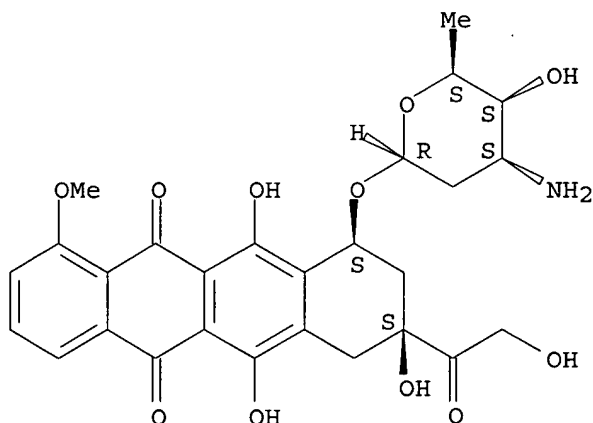
Absolute stereochemistry.



RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, hydrochloride, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 87 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:476366 HCAPLUS

DOCUMENT NUMBER: 117:76366

TITLE: In vitro effects of monoclonal antibody targeted duanomycin on human gastric cancer cells

AUTHOR(S): Wang, Senming; Chen, Xitao; Zhang, Xueyong; Fan, Daming

CORPORATE SOURCE: Dep. Gastroenterol., Zhujiang Hosp., Canton, 510282, Peop. Rep. China

SOURCE: Journal of Medical Colleges of PLA (1991), 6(4), 324-7, 331

CODEN: JMCPE6; ISSN: 1000-9094

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Aug 1992

AB In the present study, daunomycin (DM) was chosen to conjugate covalently with a monoclonal antibody, MGB2, against human gastric cancer cells via a cis-aconitic anhydride linker (directly) or a **dextran** bridge (indirectly). The molar ratio of MGB2 to DM in the conjugates was 1:6 (direct method) and 1:54 (indirect method), resp. The ELISA results revealed the antibody after conjugation retained antigen-binding capacity. The conjugates showed a highly selective cytotoxicity to the target cells. In a 1 h cytotoxicity test, cytotoxicity of the conjugates was greater than that of free DM or irrelevant conjugates to human gastric cancer cell lines, SGC-7901 and very low as far as non-target cells (HeLa) were concerned. It is suggested that the selective cytotoxicity on target cells of the conjugates is mediated by the monoclonal antibody.

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

ST daunomycin monoclonal antibody targeting stomach tumor; immunoconjugate
daunomycin antibody **conjugate** stomach cancer

IT **Pharmaceutical dosage forms**

(immunoconjugates, of daunomycin, for targeting of human gastric cancer cells)

IT Stomach, neoplasm

(inhibitors, monoclonal antibody-duanomycin **conjugates** for targeting in)

IT **Antibodies**

RL: BIOL (Biological study)

(**monoclonal**, to gastric cancer-associated antigens, daunomycin **conjugates** with, for targeting of human cancer cells)

IT Neoplasm inhibitors

(stomach, monoclonal antibody-duanomycin **conjugates** for targeting in)

IT **20830-81-3D**, Daunomycin, monoclonal antibody **conjugates**

RL: BIOL (Biological study)

(for targeting of human gastric cancer cells)

IT **20830-81-3D**, Daunomycin, monoclonal antibody **conjugates**

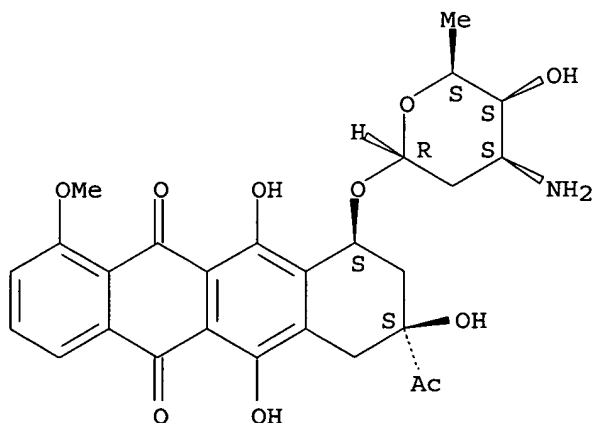
RL: BIOL (Biological study)

(for targeting of human gastric cancer cells)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 88 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1991:441980 HCAPLUS
 DOCUMENT NUMBER: 115:41980
 TITLE: Fibroblast growth factor (FGF) **conjugates**
 with cytotoxic agents and their preparation and use
 INVENTOR(S): Lappi, Douglas A.; Baird, Andrew
 PATENT ASSIGNEE(S): Salk Institute for Biological Studies, USA
 SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9012597	A1	19901101	WO 1990-US2289	19900426 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 5191067	A	19930302	US 1989-344109	19890427 <--
CA 2053275	AA	19901028	CA 1990-2053275	19900426 <--
CA 2053275	C	19990202		
EP 470183	A1	19920212	EP 1990-907848	19900426 <--
EP 470183	B1	19940629		
R: DE, FR, GB, IT				
JP 04507093	T2	19921210	JP 1990-507528	19900426 <--
JP 2891306	B2	19990517		
US 5576288	A	19961119	US 1994-257958	19940610 <--
US 5679637	A	19971021	US 1995-463996	19950605 <--
PRIORITY APPLN. INFO.:				
			US 1989-344109	A 19890427 <--
			WO 1990-US2289	W 19900426 <--
			US 1993-24682	B1 19930301 <--
			US 1994-257958	A3 19940610 <--

ED Entered STN: 10 Aug 1991

AB The invention provides a conjugate comprising FGF or other **polypeptide** reactive with an FGF receptor, and a cytotoxic agent. The cytotoxic agent can be a ribosome-inactivating **protein** (RIP), such as saporin, although other cytotoxic agents can also be advantageously used. The cytotoxic agent can be attached to FGF through a chemical bond or the composition can be prepared as a chimera, using techniques of

recombinant DNA. The conjugate can be used to treat FGF-mediated pathophysiol. conditions by specifically targeting cells having FGF receptors and inhibiting proliferation of or causing death of the cells. Addnl., the conjugate can be used to target cytotoxic agents into cells having FGF receptors, and to inhibit the proliferation of such cells. A method of purifying the conjugate on an immobilized heparin column is also provided. Recombinant basic FGF was conjugated to saporin 6 derivatized with N-succinimidyl-3-(2-pyridyldithio)propionate and the conjugate was purified by chromatog. on heparin-Sepharose. Cells from patients with Dupuytren's contracture were sensitive to the conjugate. The ED50 was 350 pM.

IC ICM A61K047-48

CC 1-6 (Pharmacology)

Section cross-reference(s): 2, 63

ST fibroblast growth factor **conjugate** cytotoxin; ribosome inactivating **protein** FGF **conjugate**; saporin fibroblast growth factor **conjugate**; heparin FGF **conjugate**

- cytotoxin purifn
- IT Cytotoxic agents
(**conjugates** with fibroblast growth factor, fibroblast growth factor-mediated diseases treatment with)
- IT Neoplasm inhibitors
(fibroblast growth factor-cytotoxic agent **conjugates** as)
- IT Receptors
RL: BIOL (Biological study)
(for fibroblast growth factor, **polypeptide**-cytotoxic agent **conjugates** targeting)
- IT **Pharmaceutical dosage forms**
(for fibroblast growth factor-cytotoxic agent **conjugates**)
- IT Atherosclerosis
(treatment of, fibroblast growth factor-cytotoxic agent **conjugates** for)
- IT **Proteins, specific or class**
RL: BIOL (Biological study)
(RIP (ribosome-inactivating **protein**), **conjugates**, with fibroblast growth factor, fibroblast growth factor-mediated diseases treatment with)
- IT Inflammation inhibitors
(antirheumatics, fibroblast growth factor-cytotoxic agent **conjugates** as)
- IT **Proteins, specific or class**
RL: BIOL (Biological study)
(**conjugates**, of hst gene, with cytotoxic agents, fibroblast growth factor-mediated diseases treatment with)
- IT **Proteins, specific or class**
RL: BIOL (Biological study)
(**conjugates**, of int-2 gene, with cytotoxic agents, fibroblast growth factor-mediated diseases treatment with)
- IT **Peptides, compounds**
Proteins, specific or class
RL: BIOL (Biological study)
(**conjugates**, with cytotoxic agent, fibroblast growth factor-receptor-targeting)
- IT Anthracyclines
RL: BIOL (Biological study)
(**conjugates**, with fibroblast growth factor, fibroblast growth factor-mediated diseases treatment with)
- IT Connective tissue
(disease, Dupuytren's contracture, cells of, recombinant basic fibroblast growth factor-saporin 6 **conjugate** effect on)
- IT Eye, disease or disorder
(proliferative retinopathy, treatment of, fibroblast growth factor-cytotoxic agent **conjugates** for)
- IT **Proteins, specific or class**
RL: SPN (Synthetic preparation); PREP (Preparation)
(saporins 6, **conjugates**, with recombinant basic fibroblast growth factor, preparation of and receptor targeting with)
- IT **Proteins, specific or class**
RL: BIOL (Biological study)
(saporins, **conjugates**, with fibroblast growth factor, fibroblast growth factor-mediated diseases treatment with)
- IT 59-05-2D, Methotrexate, fibroblast growth factor **conjugates**
20830-81-3D, fibroblast growth factor **conjugates**
62031-54-3D, Fibroblast growth factor, cytotoxic agent **conjugates**
106096-92-8D, cytotoxic agent **conjugates** 106096-93-9D, Basic fibroblast growth factor, cytotoxic agent **conjugates**
129653-64-1D, Fibroblast growth factor 5, cytotoxic agent

conjugates

RL: BIOL (Biological study)

(fibroblast growth factor-mediated diseases treatment with)

IT **9005-49-6D**, Heparin, **conjugates 9012-36-6D**,Sephadex, heparin **conjugates**

RL: BIOL (Biological study)

(for fibroblast growth factor-cytotoxic agent **conjugates**
purification)IT **20830-81-3D**, fibroblast growth factor **conjugates**

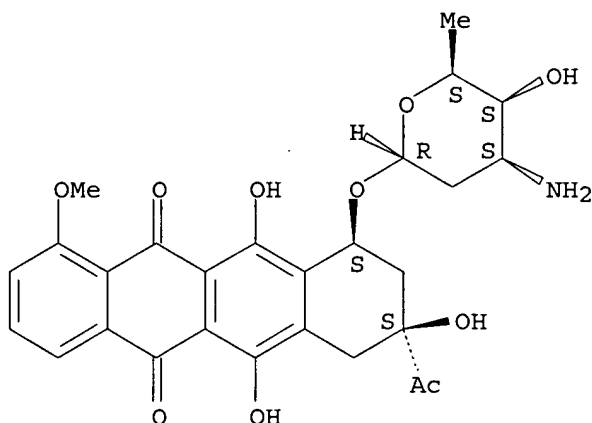
RL: BIOL (Biological study)

(fibroblast growth factor-mediated diseases treatment with)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT **9005-49-6D**, Heparin, **conjugates 9012-36-6D**,Sephadex, heparin **conjugates**

RL: BIOL (Biological study)

(for fibroblast growth factor-cytotoxic agent **conjugates**
purification)

RN 9005-49-6 HCAPLUS

CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-36-6 HCAPLUS

CN Agarose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L242 ANSWER 89 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:499410 HCAPLUS

DOCUMENT NUMBER: 115:99410

TITLE: Anthracycline derivative **conjugates** having a novel linker, methods for their production, and their use as cytotoxic agents for targeting therapy

INVENTOR(S): Greenfield, Robert S.; Braslawsky, Gary R.; Olech, Lee J.; Kaneko, Takushi; Kiener, Peter A.

PATENT ASSIGNEE(S): Bristol-Myers Co., USA

SOURCE: Eur. Pat. Appl., 70 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 398305	A2	19901122	EP 1990-109268	19900516 <--
EP 398305	A3	19910320		
EP 398305	B1	19970319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5122368	A	19920616	US 1989-353729	19890517 <--
CA 2016584	AA	19901117	CA 1990-2016584	19900511 <--
CA 2016584	C	19990629		
IL 94379	A1	19970218	IL 1990-94379	19900514 <--
FI 102356	B1	19981130	FI 1990-2387	19900514 <--
NO 9002197	A	19901119	NO 1990-2197	19900516 <--
NO 300691	B1	19970707		
AU 9055117	A1	19901122	AU 1990-55117	19900516 <--
AU 631638	B2	19921203		
ZA 9003757	A	19920129	ZA 1990-3757	19900516 <--
AT 150321	E	19970415	AT 1990-109268	19900516 <--
ES 2099075	T3	19970516	ES 1990-109268	19900516 <--
JP 03027321	A2	19910205	JP 1990-125629	19900517 <--
JP 3062696	B2	20000712		
KR 136899	B1	19980425	KR 1990-7085	19900517 <--
PRIORITY APPLN. INFO.:			US 1989-353729	A 19890517 <--
			US 1988-155181	B2 19880211 <--
			US 1988-270509	B2 19881116 <--

OTHER SOURCE(S): MARPAT 115:99410

ED Entered STN: 06 Sep 1991

AB The title conjugates are provided, as are methods for their production, pharmaceutical compns., and methods for delivering cytotoxic anthracyclines to a selected population of cells desired to be eliminated. The anthracycline conjugates comprise ≥ 1 anthracycline mol. linked to a ligand that is reactive with a cell population to be eliminated, the anthracycline having a keto group at the C-13 position, and being attached to the ligand via a linker arm and being bound to that linker arm via an acid-sensitive acylhydrazone bond at the 13-keto position of the anthracycline. The conjugates of the invention are therefore useful in antibody- or ligand-mediated drug delivery systems for the preferential killing of a selected cell population in the treatment of diseases such as cancers and other tumors non-cytocidal viral or other pathogenic infections, and autoimmune disorders. Thus, a cysteine-containing bombesin analog was synthesized, purified, and reacted with adriamycin 13-[3-(2-pyridyldithio)propionyl]hydrazone-HCl (I) (preparation given). Binding activity of the **peptide** in the bombesin-adriamycin conjugate was not disturbed, the conjugate retaining the ability to bond to bombesin receptor-pos. cells. The conjugate was highly cytotoxic toward SVT2 transformed fibroblast cells and was more potent than free adriamycin. A portion of the cytotoxic activity of the conjugate was blocked by excess bombesin. The conjugate was also specifically cytotoxic toward HCT116 colon carcinoma cells and Swiss 3T3 cells. Conjugates of adriamycin with various monoclonal antibodies, with EGF, and with transferrin are also described.

IC ICM A61K047-48

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 1, 27

ST anthracycline deriv ligand **conjugate** cytotoxic; antibody
 anthracycline **conjugate** targeting therapy; monoclonal antibody

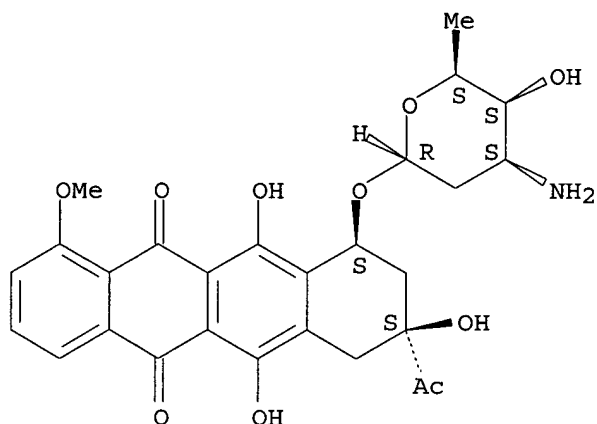
adriamycin **conjugate** cytotoxic; bombesin adriamycin **conjugate** cytotoxic; EGF adriamycin **conjugate** cytotoxic; transferrin adriamycin **conjugate**; anticancer anthracycline deriv ligand **conjugate**; autoimmune treatment anthracycline ligand **conjugate**; virus infection treatment anthracycline ligand **conjugate**

- IT Anti-infective agents
(anthracycline derivative-ligand **conjugates** as)
- IT Neoplasm inhibitors
(anthracycline derivative-ligand **conjugates** as, for targeting therapy)
- IT Virucides and Virustats
(anthracycline derivative-ligand **conjugates** in, for noncytotoxic viral infection)
- IT Cytotoxic agents
(anthracycline derivative-ligand **conjugates**, for targeting therapy)
- IT Agglutinins and Lectins
RL: BIOL (Biological study)
(**conjugates** with anthracycline derivs., as cytotoxic agents, for trgeting therapy)
- IT **Pharmaceutical dosage forms**
(of anthracycline derivative-ligand **conjugates**, as cytotoxic agents)
- IT Lymphoma
(B-cell, monoclonal antibody to, **conjugate** with adriamycin derivs., for targeting therapy)
- IT Leukemia
(T-cell, monoclonal antibody to, **conjugate** with adriamycin derivs., for targeting therapy)
- IT Disease
(autoimmune, treatment of, anthracycline derivative-ligand **conjugates** for)
- IT Animal growth regulators
RL: BIOL (Biological study)
(blood platelet-derived growth factors, **conjugates** with anthracycline derivs., as cytotoxic agents, for targeting therapy)
- IT Ligands
RL: BIOL (Biological study)
(**conjugated**, with anthracycline derivs., as cytotoxic agents for targeting therapy)
- IT Anthracyclines
RL: PREP (Preparation)
(**conjugates**, preparation of, as cytotoxic agents, for targeting therapy)
- IT **Carbohydrates and Sugars, compounds**
 Peptides, compounds
 Proteins, specific or class
 Steroids, compounds
 Transferrins
 RL: BIOL (Biological study)
 (**conjugates**, with anthracycline derivs., as cytotoxic agents, for targeting therapy)
- IT Lymphokines and Cytokines
RL: BIOL (Biological study)
(interleukin 2, **conjugates** with anthracycline derivs., as cytotoxic agents, for trgeting therapy)
- IT **Antibodies**
RL: BIOL (Biological study)
(monoclonal, **conjugates** with adriamycin derivs., as

- cytotoxic agents, for targeting therapy)**
- IT Lung, disease or disorder
(non-small-cell carcinoma, monoclonal antibody to, **conjugate**
with adriamycin derivs., for targeting therapy)
- IT Animal growth regulators
RL: BIOL (Biological study)
(α -transforming growth factors, **conjugates** with
anthracycline derivs., as cytotoxic agents, for targeting therapy)
- IT Animal growth regulators
RL: BIOL (Biological study)
(β -transforming growth factors, **conjugates** with
anthracycline derivs., as cytotoxic agents, for targeting therapy)
- IT Interferons
RL: BIOL (Biological study)
(β 2, **conjugates** with anthracycline derivs., as cytotoxic
agents, for targeting therapy)
- IT 135617-01-5
RL: BIOL (Biological study)
(in cytotoxic **conjugate** preparation)
- IT 115616-51-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, with adriamycin, for cytotoxic
conjugate preparation)
- IT 135589-05-8DP, adriamycin derivative **conjugates**
RL: PREP (Preparation)
(preparation of, as cytotoxic agents for targeting therapy)
- IT 9002-76-0DP, Gastrin, anthracycline derivative **conjugates**
9004-10-8DP, Insulin, anthracycline derivative **conjugates**
20830-81-3DP, ligand **conjugates** 23214-92-8DP,
Adriamycin, ligand **conjugates** 31362-50-2DP, Bombesin,
anthracycline derivative **conjugates** 50935-04-1DP, ligand
conjugates 56124-62-0DP, AD-32, ligand **conjugates**
56420-45-2DP, Epirubicin, ligand **conjugates** 58957-92-9DP,
Idarubicin, ligand **conjugates** 62229-50-9DP, Epidermal growth
factor, anthracycline derivative **conjugates** 63521-85-7DP,
Esorubicin, ligand **conjugates** 66211-92-5DP, Doxorubicin,
ligand **conjugates** 67763-96-6DP, Insulin-like growth factor-I,
anthracycline derivative **conjugates** 67763-97-7DP, Insulin-like
growth factor-II, anthracycline derivative **conjugates**
80043-53-4DP, Gastrin-releasing **peptide**, anthracycline derivative
conjugates 88254-07-3DP, ligand **conjugates**
97858-99-6DP, ligand **conjugates** 135617-00-4DP, ligand
conjugates
RL: PREP (Preparation)
(preparation of, as cytotoxic agents, for targeting therapy)
- IT 79886-55-8D, Succinimidyl-4-(p-maleimidophenyl)butyrate, monoclonal
antibody **conjugates**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with adriamycin derivative, in cytotoxic **conjugate**
preparation)
- IT 25316-40-9, Adriamycin hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with pyridylthiopropionyl hydrazide, for cytotoxic
conjugate preparation)
- IT 20830-81-3DP, ligand **conjugates**
RL: PREP (Preparation)
(preparation of, as cytotoxic agents, for targeting therapy)
- RN 20830-81-3 HCAPLUS
- CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-

hexopyranosyl) oxy] -7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 25316-40-9, Adriamycin hydrochloride

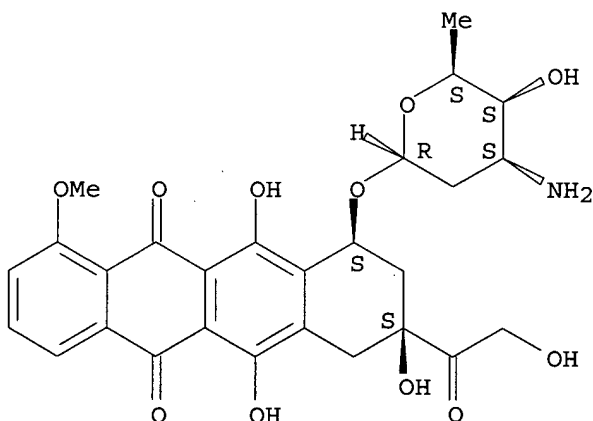
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with pyridylthiopropionyl hydrazide, for cytotoxic
conjugate preparation)

RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-
hexopyranosyl) oxy] -7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl) -
1-methoxy-, hydrochloride, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L242 ANSWER 90 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:590572 HCAPLUS

DOCUMENT NUMBER: 113:190572

TITLE: An antibody-catalyzed bimolecular Diels-Alder reaction

AUTHOR(S): Braisted, Andrew C.; Schultz, Peter G.

CORPORATE SOURCE: Dep. Chem., Univ. California, Berkeley, CA, 94720, USA
 SOURCE: Journal of the American Chemical Society (1990
), 112(20), 7430-1
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 113:190572

ED Entered STN: 23 Nov 1990

AB Antibodies generated against a [2.2.2]bicyclic transition state analog
 proved to be effective catalysts for a bimol. Diels-Alder reaction. One
 of these antibodies catalyzed the reaction with a k_{cat} value of 0.67 s⁻¹
 and K_m values of 1130 μ M and 740 μ M for the diene and dienophile,
 resp. The dissociation constant (K_D) for the Diels-Alder reaction product is
 10 μ M which compares favorably to the K_D of 126 nM for the transition
 state analog. The strategy reported here should be generally applicable
 Diels-Alder reactions involving acyclic dienes, thereby providing a
 methodol. for producing catalytic antibodies to control the stereochem.
 and regiochem. in a variety of Diels-Alder reactions. Moreover,
 characterization of this catalytic antibody should provide insight towards
 the mechanisms of concerted biochem. transformations.

CC 22-5 (Physical Organic Chemistry)
 Section cross-reference(s): 6, 7

IT **129849-42-9DP, conjugate proteins of**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion of, to antibody **Diels-Alder**
 reaction catalyst)

IT **129849-41-8P 129849-42-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion of, to isothiocyanate)

IT **129849-43-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion of, to protein derivative)

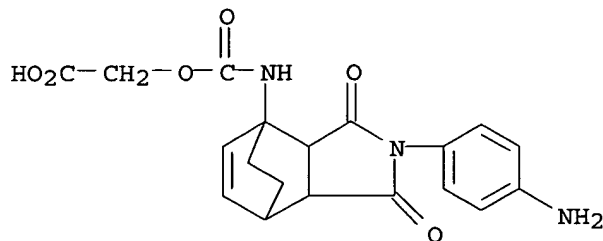
IT **129849-39-4P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and elimination reaction of, cyclohexadiene derivative by)

IT **129849-37-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT **129849-42-9DP, conjugate proteins of**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion of, to antibody **Diels-Alder**
 reaction catalyst)

RN 129849-42-9 HCAPLUS

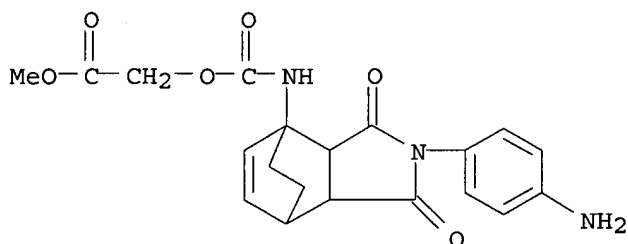
CN Acetic acid, [[[[2-(4-aminophenyl)-1,2,3,3a,7,7a-hexahydro-1,3-dioxo-4,7-
 ethano-4H-isindol-4-yl]amino]carbonyl]oxy]-,
 (3 α ,4 β ,7 α ,7 α)-(9CI) (CA INDEX NAME)



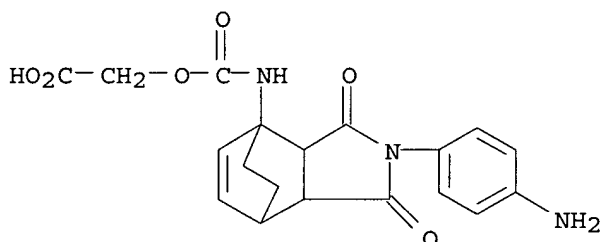
IT 129849-41-8P 129849-42-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to isothiocyanate)

RN 129849-41-8 HCAPLUS

CN Acetic acid, [[[[2-(4-aminophenyl)-1,2,3,3a,7,7a-hexahydro-1,3-dioxo-4,7-ethano-4H-isoindol-4-yl]amino]carbonyl]oxy]-, methyl ester,
(3 α ,4 β ,7 α ,7 α)-(9CI) (CA INDEX NAME)

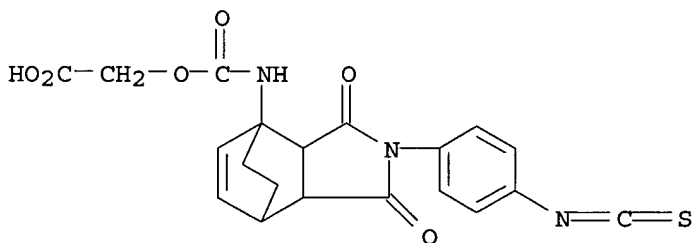
RN 129849-42-9 HCAPLUS

CN Acetic acid, [[[[2-(4-aminophenyl)-1,2,3,3a,7,7a-hexahydro-1,3-dioxo-4,7-ethano-4H-isoindol-4-yl]amino]carbonyl]oxy]-,
(3 α ,4 β ,7 α ,7 α)-(9CI) (CA INDEX NAME)

IT 129849-43-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to protein derivative)

RN 129849-43-0 HCAPLUS

CN Acetic acid, [[[[1,2,3,3a,7,7a-hexahydro-2-(4-isothiocyanatophenyl)-1,3-dioxo-4,7-ethano-4H-isoindol-4-yl]amino]carbonyl]oxy]-,
(3 α ,4 β ,7 α ,7 α)-(9CI) (CA INDEX NAME)

IT 129849-39-4P

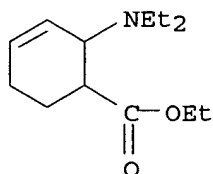
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and elimination reaction of, cyclohexadiene derivative by)

RN 129849-39-4 HCAPLUS

CN 3-Cyclohexene-1-carboxylic acid, 2-(diethylamino)-, ethyl ester (9CI) (CA INDEX NAME)



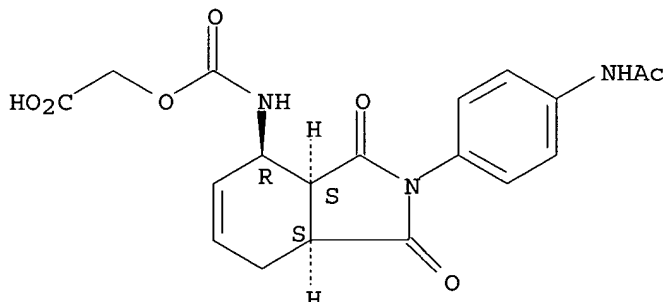
IT 129849-37-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 129849-37-2 HCAPLUS

CN Acetic acid, [[[(3aR,4S,7aR)-2-[4-(acetylamino)phenyl]-2,3,3a,4,7,7a-hexahydro-1,3-dioxo-1H-isoindol-4-yl]amino]carbonyl]oxy]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L242 ANSWER 91 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:62512 HCAPLUS

DOCUMENT NUMBER: 114:62512

TITLE: Synthesis of anthracyclines related to daunomycin

AUTHOR(S): Thomas, Gareth J.

CORPORATE SOURCE: Res. Div., Roche Products Ltd., Hertfordshire, AL7 3AY, UK

SOURCE: Recent Prog. Chem. Synth. Antibiot. (1990),
467-96. Editor(s): Lukacs, Gabor; Ohno, Masaji.
Springer: Berlin, Fed. Rep. Ger.
CODEN: 56ZEA6

DOCUMENT TYPE: Conference; General Review

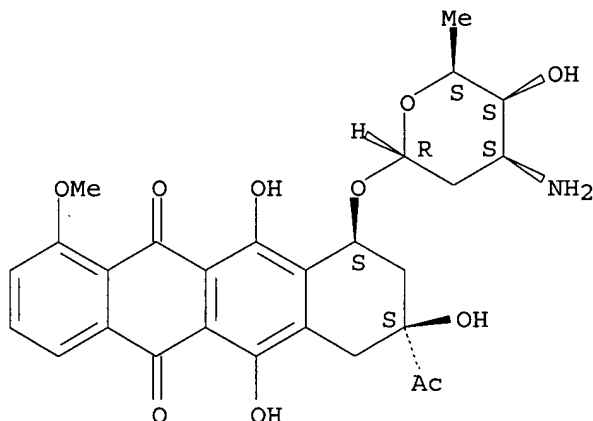
LANGUAGE: English

ED Entered STN: 23 Feb 1991

AB A review with 174 refs. Topics include synthetic approaches to the tetracyclic aglycon moiety of anthracyclines related to daunomycin, based on Friedel-Crafts acylations, base-catalyzed annulations and Diels-Alder reactions. Daunomamine and related sugars prepared from carbohydrate or non-carbohydrate precursors, and coupling of sugar and aglycon moieties has led to new anthracyclines.

CC 33-0 (Carbohydrates)
 Section cross-reference(s): 26
 IT 20830-81-3DP, analogs
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of)
 IT 20830-81-3DP, analogs
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of)
 RN 20830-81-3 HCAPLUS
 CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 92 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:578176 HCAPLUS

DOCUMENT NUMBER: 113:178176

TITLE: Coupling a preactivated daunorubicin derivative to antibody. A new approach

AUTHOR(S): Page, Michel; Thibeault, Denis; Noel, Christiane; Dumas, Louise

CORPORATE SOURCE: Fac. Med., Univ. Laval, Ste-Foy, QC, G1K 7P4, Can.

SOURCE: Anticancer Research (1990), 10(2A), 353-7

CODEN: ANTRD4; ISSN: 0250-7005

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Nov 1990

AB Many procedures have been reported for coupling anthracycline drugs to antibody for drug targeting. But they either yield conjugates with lower pharmacol. activity or antibodies which have lost much of their immunol. specificity. The use of glutaraldehyde for coupling saves both pharmacol. and immunol. activities but it causes a considerable polymerization of the antibody which is undesirable for in vivo use. A new coupling procedure is reported which uses an activated daunorubicin derivative which is later added to the antibody. Using this procedure for daunorubicin coupling to monoclonal anti-CEA, no significant polymerization of the conjugate and a full recovery of the pharmacol. activity as tested in vitro on CEA producing human colon adenocarcinoma cells was found. The activated drug was stable for one week at 25° and the whole coupling procedure is highly reproducible.

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ST daunorubicin activation antibody coupling; antitumor daunorubicin antibody
conjugate; protein daunorubicin conjugate
antitumor

IT **Pharmaceutical dosage forms**
(daunorubicin **conjugates** with monoclonal antibody of lysine
for, antitumor activity and preparation of)

IT Neoplasm inhibitors
(adenocarcinoma, daunorubicin **conjugates** with monoclonal
antibody or lysine as)

IT **Antibodies**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**monoclonal, conjugates**, with activated
daunorubicin ester, antitumor activity and preparation and stability of)

IT 56-87-1DP, L-Lysine, **conjugates** with daunorubicin ester
129991-33-9DP, **conjugates** with monoclonal antibody or lysine
RL: SPN (Synthetic preparation); PREP (Preparation)
(antitumor activity and preparation and stability of activated)

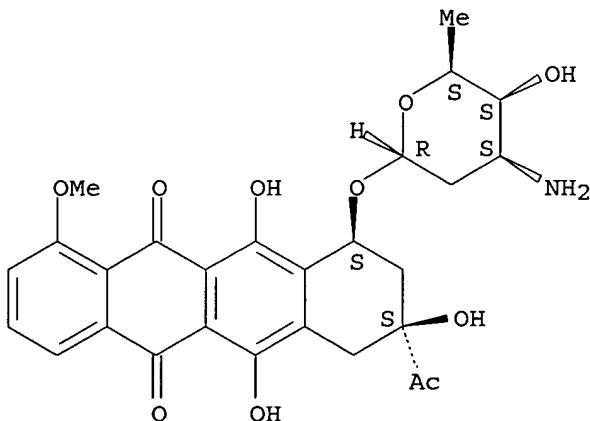
IT **20830-81-3, Daunorubicin**
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, for antibody **coupling**)

IT **20830-81-3, Daunorubicin**
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, for antibody **coupling**)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-
hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,
(8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 93 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:520784 HCAPLUS

DOCUMENT NUMBER: 111:120784

TITLE: Immobilization of antigens, antibodies and drugs on
carbohydrate chains and their use in oncology

AUTHOR(S): Hirai, Hidematsu; Hibi, Nozomu; Nishi, Shinzo;
Tsukada, Yutaka; Hurwitz, Esther; Sela, Michel

CORPORATE SOURCE: Tumor Lab., Tokyo, Japan

SOURCE: UCLA Symposia on Molecular and Cellular Biology, New
Series (1989), 80 (Protein Recognit.
Immobilized Ligands), 257-65

CODEN: USMBD6; ISSN: 0735-9543

DOCUMENT TYPE:

Journal

LANGUAGE:

English

ED Entered STN: 01 Oct 1989

AB Polyclonal or monoclonal antibodies against α -fetoprotein and carcinoembryonic antigen were raised in animals and the antibodies were used either for immunoassay or for treatment of cancer. Immunoabsorbents were prepared using CNBr to purify the antigens and antibodies. Also **dextran** was oxidized with periodate giving a polyaldehyde to which daunomycin was conjugated. The conjugates were then mixed with the antibodies to give daunomycin-**dextran**-antibody conjugates. The concentration of free daunomycin required to kill 50% AH66 rat hepatoma cells

in 48 h was 4 $\mu\text{g/mL}$ but the concentration of daunomycin contained in the conjugate was 0.92 $\mu\text{g/mL}$.

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 9, 15

ST daunomycin antibody **dextran conjugate**; fetoprotein antibody; carcinoembryonic antibody; immunoassay antibody; anthracycline antibiotic antibody **conjugate**

IT Neoplasm inhibitors

(daunomycin-oxidized **dextran**-antibody **conjugates**)IT **Immobilization, biochemical**(of antigens and antibodies and anthracycline antibiotics on **dextrans**)IT **Antibodies**

RL: BIOL (Biological study)

(purification for immunoassay and **conjugation** with **dextran** and anthracycline antibiotics as neoplasm inhibitors)

IT Antibiotics

(anthracycline, reaction products with oxidized **dextran** and antibodies, preparation and neoplasm inhibiting activity of)IT **Antibodies**

RL: BIOL (Biological study)

(monoclonal, purification for immunoassay and **conjugation** with **dextran** and anthracycline antibiotics as neoplasm inhibitors)

IT Anthracyclines

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(reaction products, with oxidized **dextran** and antibodies, preparation and neoplasm inhibiting activity of)

IT Fetoproteins

RL: BIOL (Biological study)

(α -, antibodies to, purification for immunoassay and **conjugation** with **dextran** and anthracycline antibiotics as neoplasm inhibitors)

IT 9004-54-ODP, **Dextran**, oxidized, reaction products with daunomycin and antibodies 20830-81-3DP, Daunomycin, **conjugates** with oxidized **dextran** and antibodies 23214-92-8DP, Adriamycin, **conjugates** with oxidized **dextran** and antibodies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and neoplasm inhibiting activity of)

IT 20830-81-3DP, Daunomycin, **conjugates** with oxidized **dextran** and antibodies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

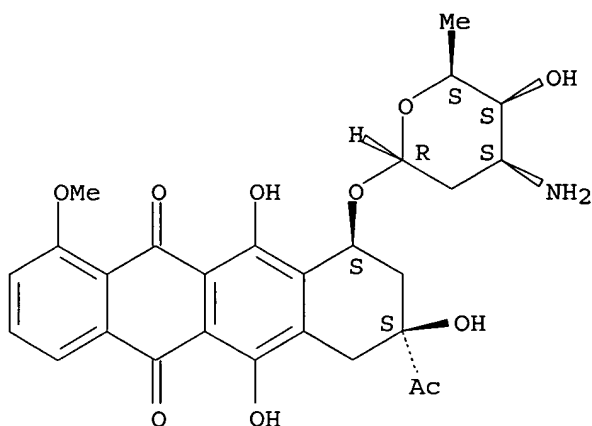
study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and neoplasm inhibiting activity of)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L242 ANSWER 94 OF 145 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:597743 HCAPLUS

DOCUMENT NUMBER: 113:197743

TITLE: Action of polymeric prodrugs based on N-(2-hydroxypropyl)methacrylamide copolymers. II. Body distribution and T-cell accumulation of free and polymer-bound [125I]daunomycin

AUTHOR(S): Rihova, B.; Veres, K.; Fornusek, L.; Ulbrich, K.; Strohalm, J.; Vetvicka, V.; Bilej, M.; Kopecek, J.

CORPORATE SOURCE: Inst. Microbiol., Czech. Acad. Sci., Prague, 14220, Czech.

SOURCE: Journal of Controlled Release (1989), 10(1), 37-49

CODEN: JCREEC; ISSN: 0168-3659

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Nov 1990

AB N-(2-Hydroxypropyl)methacrylamide copolymers containing **oligopeptide** side-chains terminated in [125I]daunomycin (DNM), and targeting moieties [anti-Thy 1.2 antibodies or nonspecific rabbit γ -globulin (RGG)], were synthesized. The body distribution of these copolymers after i.v. administration was studied in vivo in an inbred strain of mice (C57L/J). Covalent binding of [125I]DNM to an HPMA copolymer containing anti-Thy 1.2 antibodies increased its level in blood 5-20-fold and decreased its rate of elimination compared to the free drug. The maximal organ accumulation of [125I]DNM bound to the targetable conjugate in the spleen, thymus, and liver was detected after 2 h. Liver accumulation was observed only when the specific anti-Thy 1.2 antibody was replaced with nonspecific RGG in the conjugates. Similar results were obtained when using i.p. administration of the copolymers studied. The accumulation of HPMA copolymer conjugates in thymocytes was studied in vitro. Intracellular radioactivity of thymocytes cultivated in the presence of [125I]DNM-HPMA copolymer

conjugates with anti-Thy 1.2 antibodies was maximal after 2 h while the maximum accumulation of free drug was observed after 1 h. Comparing HPMAC copolymers without targeting moieties, the copolymer with biodegradable **oligopeptide** side-chains (Gly-Phe-Leu-Gly) demonstrated a higher binding and accumulation of radioactivity in the T cells than the copolymer containing nonbiodegradable side-chains (Gly-Gly). The higher hydrophobicity of the former may contribute to the observed phenomenon.

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 34, 35

ST daunomycin hydroxypropylmethacrylamide antibody **conjugate**
antitumor

IT Blood

Bone marrow, metabolism

Heart, metabolism

Kidney, metabolism

Liver, metabolism

Lung, metabolism

Spleen, metabolism

Thymus gland

(daunomycin **conjugates** with hydroxypropylmethacrylamide-methacryloyl **peptide** copolymers distribution in, antitumor activity in relation to)

IT **Pharmaceutical dosage forms**

(daunomycin, soluble polymer carriers for)

IT Neoplasm inhibitors

(daunomycin-acrylamide-methacryloyl **peptide** copolymer-antibody **conjugates** as, biodistribution of)

IT **Immunoglobulins**

RL: BIOL (Biological study)

(G, **conjugates**, with daunomycin and hydroxypropylmethacrylamide-methacryloyl **peptide** copolymers, biodistribution and T-cell accumulation of)

IT Lymphocyte

(T-, daunomycin-acrylamide-methacryloyl **peptide** copolymer-antibody **conjugates** accumulation in, antitumor activity in relation to)

IT **20830-81-3DP**, Daunomycin, **conjugates** with hydroxypropylmethacrylamide-methacryloyl **peptide** derivative copolymers and antibodies 57950-81-9DP, reaction products with iodine 125 labeled daunomycin and antibodies 130177-41-2DP, **conjugates** with hydroxypropylmethacrylamide-methacryloyl **peptide** derivative copolymers and antibodies

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and biodistribution and T-cell accumulation of, as prodrug, antitumor activity in relation to)

IT **20830-81-3DP**, Daunomycin, **conjugates** with hydroxypropylmethacrylamide-methacryloyl **peptide** derivative copolymers and antibodies

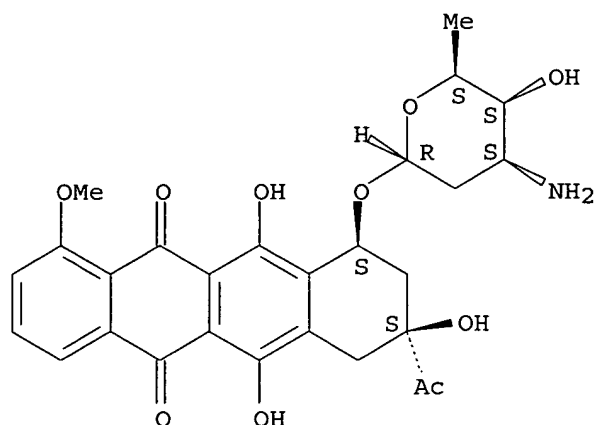
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and biodistribution and T-cell accumulation of, as prodrug, antitumor activity in relation to)

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d iall abeq tech abex 95-107

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' -
CONTINUE? (Y)/N:y

L242 ANSWER 95 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-355679 [33] WPIX
CROSS REFERENCE: 2002-616978 [66]; 2004-058995 [06]
DOC. NO. CPI: C2004-135320
TITLE: Coupling a first biomolecule to a second biomolecule,
useful for producing immunogens, inoculants for
generating antibodies and vaccines comprises contacting
diene and **dienophile** components to permit a
cycloaddition reaction.

DERWENT CLASS: B04 D16
INVENTOR(S): POZSGAY, V
PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 2004082067	A1	20040429	(200433)*		17	C12P021-00	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004082067	A1 Provisional	US 2000-223959P	20000809
	Div ex	US 2001-919637	20010801
		US 2003-692411	20031022

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2004082067	A1 Div ex	US 6673905

PRIORITY APPLN. INFO: US 2000-223959P

parent appl.

20000809; US 2001-919637
20010801; US 2003-692411
20031022

INT. PATENT CLASSIF.:

MAIN: C12P021-00

BASIC ABSTRACT:

US2004082067 A UPAB: 20040525

NOVELTY - Coupling a first biomolecule to a second biomolecule or to a gel or solid support comprises contacting the diene component with the **dienophile** component to permit a **cycloaddition** reaction to occur between the components.

DETAILED DESCRIPTION - Coupling a first biomolecule to a second biomolecule or to a gel or solid support comprises:

- (a) covalently attaching a diene moiety to the first biomolecule to form a diene component;
- (b) covalently attaching a **dienophile** to the second biomolecule to form a **dienophile** component; and
- (c) contacting the diene component with the **dienophile** component to permit **cycloaddition** reaction to occur between the components.

The method also comprises:

- (a) covalently attaching a diene moiety to a substrate selected from the biomolecule and the support to form a diene component;
- (b) covalently attaching a **dienophile** to the substrate not selected in (a) to form a **dienophile** component; and
- (c) contacting the diene component with the **dienophile** component to permit a **cycloaddition** reaction to occur between the components.

INDEPENDENT CLAIMS are also included for:

- (1) a conjugate of biomolecules or a biomolecule with a solid or gel support prepared by the method above and having the formula (I);
- (2) an immobilized biomolecule consisting of formula (I);
- (3) a pharmaceutical composition comprising the conjugate and a pharmaceutical carrier;
- (4) a method of inducing, in a mammal, antibodies which immunoreact with a polysaccharide;
- (5) an antibody which immunoreacts with a polysaccharide, where the antibody is obtained from a mammal, and the production of the antibody by the mammal has been induced by the method of (4);
- (6) an antibody, produced by a hybridoma, which immunoreacts with a polysaccharide, where nucleic acid sequences encoding the antibody in the hybridoma are obtained from a mammal in which the production of the antibody has been induced by the method of (4);
- (7) a method of inducing passive immunity in a mammal; and
- (8) a vaccine composition comprising the conjugate, an adjuvant and a pharmaceutical carrier.

R and R' = independently H or methyl, or together constitute CH₂, CH₂CH₂, or O;

X = CH or N;

Y = N, CH=C, or NH-N; and

B1 and B2 = biomolecules independently selected from polypeptides, carbohydrates, polysaccharides, or nucleic acids, and are optionally attached via a linker.

ACTIVITY - Antimicrobial.

MECHANISM OF ACTION - Vaccine.

USE - The method is useful for coupling a first biomolecule to a second biomolecule. It is also applicable to the immobilization of biomolecules on gel or solid supports. The conjugated products are useful as immunogens, as inoculants for the generation of antibodies and as vaccines. The immobilized biomolecules are also useful for catalysis,

separation, components of diagnostic devices and as research tools. The antibodies are useful for preventing, treating or ameliorating infection and diseases caused by microorganisms.

Dwg.0/2

FILE SEGMENT: CPI
 FIELD AVAILABILITY: AB; GI; DCN
 MANUAL CODES: CPI: B04-B04D2; B04-C02; B04-C02C; B04-G01; B04-G07;
 B04-N02; B04-N04; B06-H; B14-S11B; D05-H07;
 D05-H10; D05-H11; D05-H15

TECH UPTX: 20040525

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: In the method above, the first biomolecule is a polysaccharide and the second biomolecule is a polypeptide. The polysaccharide is selected from bacterial capsular polysaccharides, its fragments or synthetic analogues. The bacterial capsular polysaccharide is selected from capsular polysaccharides of Haemophilus influenzae type b, Neisseria meningitidis, Group B Streptococci, Salmonella typhi, E. coli, or Pneumococci, and the polypeptide is selected from bacterial toxins, bacterial toxoids, bacterial outer membrane proteins, keyhole limpet hemocyanin, horseshoe crab hemocyanin, edestin, mammalian serum albumins, mammalian gamma-globulins, or IgG-G. The **dienophile** moiety is attached to the biomolecule by contacting the biomolecule with 3-sulfosuccinimidyl 4-maleimidobutyrate. The diene moiety is attached to the polysaccharide by glycosylation of trans,trans-hexa-2,4-dien-1-ol with the polysaccharide. One of the biomolecules is a polysaccharide, and the diene moiety is attached to the polysaccharide by glycosylation of trans,trans-hexa-2,4-dien-1-ol with the polysaccharide. Inducing, in a mammal, antibodies which immunoreact with a polysaccharide comprises administering to the mammal the composition of (3), where one of the biomolecules is a polysaccharide. Inducing passive immunity in a mammal comprises administering to the mammal an amount of an antibody of (5) or (6). Preferred Conjugate of Biomolecules: One of the biomolecules is a polysaccharide and the other biomolecule is a polypeptide. The polysaccharide is a viral or bacterial polysaccharide.

ABEX UPTX: 20040525

ADMINISTRATION - Dosage is 1 mg/kg - 10 mg/kg.
 The composition can be administered orally, intranasally, intramuscularly, or subcutaneous injection.

EXAMPLE - An excess of the diene was added to the solution of **dienophile** component. After 4 days at 37 degrees C, the mixture was concentrated and the **conjugate** was purified by size exclusion chromatography. The conjugate was useful for inducing antibodies against Salmonella typhi.

L242 ANSWER 96 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2004-051039 [05] WPIX
 CROSS REFERENCE: 2001-168320 [17]; 2002-434869 [46]; 2003-237971 [23]
 DOC. NO. NON-CPI: N2004-041257
 DOC. NO. CPI: C2004-020490
 TITLE: New phosphoramidite compounds used for coupling oligonucleotides to photoreactive sites comprises photoreactive sites undergoing **cycloaddition**.
 DERWENT CLASS: B03 B04 D16 S03
 INVENTOR(S): BRUSH, C K; ELGHANIAN, R; XU, Y
 PATENT ASSIGNEE(S): (MOTI) MOTOROLA INC; (AMSH) AMERSHAM BIOSCIENCES AB
 COUNTRY COUNT: 106
 PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG MAIN IPC

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US 2003096265    A1 20030522 (200405)*      17 C12Q001-68
WO 2004002995    A1 20040108 (200413)  EN      C07F009-572
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS
    LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W:  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
    DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
    KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH
    PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN
    YU ZA ZM ZW
AU 2003236968    A1 20040119 (200447)      C07F009-572
EP 1517910       A1 20050330 (200522)  EN      C07F009-572
R:  AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
    MC MK NL PT RO SE SI SK TR
  
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APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003096265	A1 CIP of	US 1999-344620	19990625 <--
	CIP of	US 2001-928250	20010809
		US 2002-185279	20020628
WO 2004002995	A1	WO 2003-IB2514	20030627
AU 2003236968	A1	AU 2003-236968	20030627
EP 1517910	A1	EP 2003-735882	20030627
		WO 2003-IB2514	20030627

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2003096265	A1 CIP of	US 6372813
AU 2003236968	A1 Based on	WO 2004002995
EP 1517910	A1 Based on	WO 2004002995

PRIORITY APPLN. INFO: US 2002-185279 20020628;
 US 1999-344620
 19990625; US 2001-928250
 20010809

INT. PATENT CLASSIF.:

MAIN: C07F009-572; C12Q001-68
 SECONDARY: C07F009-02; C07F009-24; C07F009-553; C07F009-6503;
 C07F009-6506; C07F009-6512; C07F009-6558; C07H021-00

BASIC ABSTRACT:

US2003096265 A UPAB: 20050406

NOVELTY - Phosphoramidites (I) comprise a first photoreactive site undergoing (2+2) **cycloaddition** with a second photoreactive site when irradiated with light of appropriate wavelength.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) a composition which comprises an oligonucleotide covalently attached to a hydrogel via a (2+2) **cycloaddition** of a first photoreactive site incorporated into oligonucleotide by (I) and a second photoreactive site on the hydrogel;
- (2) a probe useful in a microarray analysis which comprises a photoreactive site and an oligonucleotide, with the site incorporated into the oligonucleotide by (I);
- (3) preparation of a photoreactive oligonucleotide probe which comprises:
 - (a) stepwise addition of nucleoside phosphoramidites to a synthesis support to form an oligonucleotide;

(b) chemically coupling (I) with the oligonucleotide to form the photoreactive oligonucleotide probe (pop), incorporating a first photoreactive site capable of undergoing (2+2) **cycloaddition**;

(c) removing the (pop) from the synthesis support, and

(d) optionally deprotecting and purifying the (pop);

(4) attaching the (pop) to a hydrogel which comprises covalently bonding the (pop) to the hydrogel by combining and irradiating with ultraviolet light, and

(5) preparation of a oligonucleotide or nucleic acid probe for attachment to hydrogel which comprises incorporating a photoreactive site into a phosphoramidite coupler to form (I), followed by reaction with oligonucleotide or nucleic acid.

USE - Used for synthesizing an oligonucleotide or nucleic acid probe for attachment to hydrogel (claimed) and in microarray analysis (e.g. an expression or single nucleotide polymorphism (SNP)).

ADVANTAGE - The attachment of the probes to the polymer coated support is stable over time and during conditions where the microarray is exposed to high temperature, ionic solutions and multiple wash steps. The method is highly efficient. (I) Reduce chain type polymerization by suppressing the production of singlet oxygen and other radical species when irradiated with ultraviolet light. The reduction of singlet oxygen generation reduces the formation of deoxyribonucleic acid (DNA)-damaging hydroxy radicals, which is beneficial when oligonucleotide or nucleic acid based probes are used.

Dwg. 0/2

FILE SEGMENT: CPI EPI

FIELD AVAILABILITY: AB; GI; DCN

MANUAL CODES: CPI: B04-B03C; B05-B01J; B05-B01L; B11-C08E6; B12-K04E;

D05-H09; **D05-H10**; D05-H12D; D05-H12D1

EPI: S03-E04A5E; S03-E14H; S03-E15

TECH UPTX: 20040120

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compounds: (I) Comprise compounds of formula (IA)-(IIIC).

E = 1-8C alkyl, 1-8C alkyl-(3-8C)-cycloalkylidene-(1-8C)alkyl, 1-3C alkyl-(3-8C)-cycloalkylidenyl, 1-3C alkyl-(3-8C)-heterocycloalkylidenyl, 3-8C cycloalkylidenyl, 3-8C heterocycloalkylidenyl or 1-3C alkyl-(3-8C)-heterocycloalkylidene-(1-3C)-alkyl (all optionally substituted by 1-3 T);

T = 1-4C alkyl, 1-4C alkoxy, halo, OH, CF₃, trifluoromethoxy, amino, mono- or di-(1-4C) alkylamino, carboxamido or mono- or di-(1-4C) alkylcarboxamido;

D = R₃-(5-10C)-cycloalkynyl, 5-10C cycloalkynyl, 6-18C aryl, R₃-(6-18C)-aryl, heteroaryl, 3-14C heterocycloalkenyl, R₃-(3-14C)-heterocycloalkenyl, R₃C(O)alkenyl or R₃ alkenyl (all optionally substituted by T, phenyl, 1-4C alkoxy, carbonyl, CN or oxo);

R₃ = O, NH, NHSO₂ or SO₂;

R₁ = alkyl or cycloalkyl comprising a heteroatom;

R₂ = alkyl optionally forming a ring with the N, cycloalkyl or heterocycloalkyl;

A = 4-8C alkyl, 3-8C cycloalkyl, 3-8C heterocycloalkyl, 3-8C cycloalkyl-(1-3C)-alkyl, 3-8C heterocycloalkyl-(1-3C)-alkyl or 3-8C heterocycloalkyl (all optionally substituted by at least one halo, 1-4C alkyl, 1-4C alkoxy, amino, OH or mono- or di-(1-4C)amino;

n = 0-3;

F' = C(O) or SO₂, and

R₄, R₅ = H, 1-4C alkyl, 1-4C alkoxy, OH, CF₃, NO₂, halo or phenyl.

Preparation: No suitable preparation is given.

ABEX UPTX: 20040120

EXAMPLE - 2,3-Dimethylmaleic anhydride and 6-amino-1-hexanol were heated in dry toluene until the water produced by the reaction had distilled. The

toluene was evaporated and the residue partitioned between aqueous bicarbonate and ethyl acetate. The ethyl acetate was extracted with another portion of bicarbonate, then dried and evaporated to yield N-(6-hydroxyethyl)-2,3-dimethylmaleimide. To this alcohol (0.01 mmol) was added 2-cyanoethyl diisopropylchlorophosphoramidite (0.015 mmol), diisopropylethylamine (0.03 mmol) and tetrahydrofuran (THF). The mixture was stirred at room temperature for 2 hours and worked up to give diisopropyl-phosphoramidous acid 2-cyano-ethyl ester 6-(3,4-dimethyl-2,5-dioxo-2,5-dihydro-pyrrol-1-yl)-hexyl ester.

L242 ANSWER 97 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2003-610005 [58] WPIX
 DOC. NO. NON-CPI: N2003-486450
 DOC. NO. CPI: C2003-166451
 TITLE: Sensor chip, for example biochip for use in biological molecule analysis, including metal or semi-metal oxide carrier surface with homogeneous multilayer coating of polysiloxane.
 DERWENT CLASS: A26 A89 B04 D16 G02 S03
 INVENTOR(S): KLAPPROTH, H; MOHRY, S; RUEHE, J; KLAPZROTH, H; RUHE, J
 PATENT ASSIGNEE(S): (BIOC-N) BIOCHIP TECHNOLOGIES GMBH; (MICR-N) MICRONAS HOLDING GMBH; (KLAP-I) KLAPZROTH H; (MOHR-I) MOHRY S; (RUHE-I) RUEHE J
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 1176422	A1	20020130	(200358)*	GE	7	G01N033-52	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI							
AU 2001082017	A	20020213	(200358)			G01N033-52	
WO 2002010752	A2	20020207	(200360)	GE		G01N033-52	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
US 2004081835	A1	20040429	(200429)			B05D005-12	
JP 2004522141	W	20040722	(200448)		26	G01N033-543	
EP 1176422	B1	20041006	(200466)	GE		G01N033-52	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE							
DE 50008123	G	20041111	(200474)			G01N033-52	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1176422	A1	EP 2000-116342	20000727 <--
AU 2001082017	A	AU 2001-82017	20010724
WO 2002010752	A2	WO 2001-EP8545	20010724
US 2004081835	A1	WO 2001-EP8545	20010724
		US 2003-343024	20030505
JP 2004522141	W	WO 2001-EP8545	20010724
		JP 2002-516628	20010724
EP 1176422	B1	EP 2000-116342	20000727 <--
DE 50008123	G	DE 2000-00008123	20000727 <--
		EP 2000-116342	20000727 <--

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001082017	A Based on	WO 2002010752
JP 2004522141	W Based on	WO 2002010752
DE 50008123	G Based on	EP 1176422

PRIORITY APPLN. INFO: **EP 2000-116342**
20000727

INT. PATENT CLASSIF.:

MAIN: B05D005-12; G01N033-52; G01N033-543
 SECONDARY: B32B009-04

BASIC ABSTRACT:

EP 1176422 A UPAB: 20040429

NOVELTY - A sensor chip (I) has a carrier surface of metal oxide or semi-metal oxide, to which a homogeneous multilayer of polysiloxane has been applied by centrifugal, blade, spray, brush or dip coating.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for apparatus for dip-coating a sensor chip as in (I), comprising a holder with several open slits for receiving correspondingly dimensioned carriers (the size of the slits preferably being such that the narrowest upper side of the object carrier can be accommodated).

USE - (I) are generally biochips for use in analyses based on conjugation of biological molecules such as oligonucleotides or antibodies.

ADVANTAGE - The coatings are extremely homogeneous, show good chemical resistance and can be prepared rapidly and reproducibly.

Dwg.0/0

FILE SEGMENT: CPI EPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: A06-A00E3; A11-B05; A12-V03C2; B04-B03C; B04-C03;
 B04-G01; B11-C08E6; B12-K04; D05-H09;
D05-H10; D05-H11; G02-A05
 EPI: S03-E14H; S03-E15

TECH UPTX: 20030910

TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: (I) is dipped at 20-100degreesC in 0.1-50 wt. % solution of a bifunctional silane (II) in a solvent of boiling point 50-150degreesC, then withdrawn at a rate of 0.1-10 mm/s to form and fix the polysiloxane multilayer on the surface by crosslinking of (II). The carrier surface contains aluminum oxide or silicon dioxide, and is especially a silicon dioxide-containing surface of glass or quartz glass, a layer of highly dispersed silicon dioxide on a solid carrier or an evaporated or sputtered layer of silicon oxide on a solid carrier. The silicon atom of (II) carries 1-3 hydrolyzable atoms or groups (specifically halo, 1-4C alkoxy, 1-4C acyloxy or amino) and a second functional group suitable for nucleophilic substitution, nucleophilic addition, **Diels-Alder** or radical substitution reactions (preferably a reactive double bond, diene or **dienophile** group, epoxy, aldehyde, hydroxy, carboxylic acid, active ester, amino, disulfide, thiol, aziridine, azlactone, isocyanate, isothiocyanate or azido group or reactive leaving group.

ABEX UPTX: 20030910

EXAMPLE - Thirty glass object carriers were dipped for 10 minutes in 500 ml of hot Hellmanex (RTM; cleaning detergent) solution, washed three times with deionized water, immersed in ethanol for 5 minutes and dried. The carriers were dipped into 1 weight % solution of glycidoxo-trimethoxysilane in toluene at an insertion speed of 2.5 mm/s, withdrawn at 2.5 mm/s and fixed in a drying chamber at 120degreesC. The process required only a 5 minute silanizing stage and a 2 hour fixing stage, whereas a conventional

process required a 2 hour activating stage, a 2 hour silanizing stage, a 2 hour rinsing/dry blast stage and a 2 hour fixing stage.

L242 ANSWER 98 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2002-062331 [08] WPIX
 DOC. NO. CPI: C2002-017823
 TITLE: New covalent conjugates of hetero-bifunctional bridging compound with immunomodulatory and cell surface binding agents, especially useful for treating tumor diseases, e.g. as a vaccine component.
 DERWENT CLASS: B02 B04 D16
 INVENTOR(S): DILLOO, D; GLUESENKAMP, K; GLUSENKAMP, K
 PATENT ASSIGNEE(S): (DILL-I) DILLOO D; (GLUE-I) GLUESENKAMP K; (GLUS-I) GLUSENKAMP K
 COUNTRY COUNT: 96
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2001087347	A1	20011122	(200208)*	GE	45	A61K047-48	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
DE 10024069	A1	20011213	(200208)			C07K014-52	
AU 2001074051	A	20011126	(200222)			A61K047-48	
EP 1282448	A1	20030212	(200312)	GE		A61K047-48	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR							
US 2003134826	A1	20030717	(200348)			A61K031-69	
EP 1282448	B1	20050330	(200523)	GE		A61K047-48	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR							
DE 50105778	G	20050504	(200530)			A61K047-48	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001087347	A1	WO 2001-EP5672	20010517
DE 10024069	A1	DE 2000-10024069	20000517 <--
AU 2001074051	A	AU 2001-74051	20010517
EP 1282448	A1	EP 2001-940497	20010517
		WO 2001-EP5672	20010517
US 2003134826	A1 Cont of	WO 2001-EP5672	20010517
		US 2002-298855	20021118
EP 1282448	B1	EP 2001-940497	20010517
		WO 2001-EP5672	20010517
DE 50105778	G	DE 2001-00105778	20010517
		EP 2001-940497	20010517
		WO 2001-EP5672	20010517

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001074051	A Based on	WO 2001087347
EP 1282448	A1 Based on	WO 2001087347
EP 1282448	B1 Based on	WO 2001087347

DE 50105778 G Based on EP 1282448
 Based on WO 2001087347

PRIORITY APPLN. INFO: **DE 2000-10024069**
20000517

INT. PATENT CLASSIF.:

 MAIN: A61K031-69; A61K047-48; C07K014-52
 SECONDARY: C07D307-00; C07D487-08; C07F005-02

BASIC ABSTRACT:

WO 200187347 A UPAB: 20020204

NOVELTY - New compounds (I) consist of a hetero-bifunctional bridging compound (a), to which a component (b) having an immunomodulatory function and a component (c) having a cell surface binding function are covalently coupled, the bond between (a) and (b) being pH-labile, especially at pH 6.8 or less.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (i) the preparation of preferred compounds (I); and
- (ii) adducts of (I) with cells.

ACTIVITY - Cytostatic; immunosuppressive; antibacterial.

In tests in mice subcutaneously injected with leukemia cells, subcutaneous injection of a vaccine containing the adduct of leukemia cells with the interleukin-2 **conjugate** of maleic anhydride/2-furyl-boronic acid **Diels-Alder** adduct suppressed tumor growth and markedly increased the survival time (no quantitative results given in the source material).

MECHANISM OF ACTION - Vaccine.

USE - (I) are used for treating tumor diseases (especially leukemia), autoimmune diseases or infections; and the (I)/cell adducts are used for preparing tumor vaccines (all claimed).

ADVANTAGE - (I) bind to target cells and provide controlled release of the immunomodulator (b) at the required site of action. They are inexpensive to prepare, and provide a safe and effective tumor vaccine.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: B04-F01; B04-F02A; B04-H02B; B05-B01A; B06-H; B09-H;
 B10-A15; B10-B01; B10-B02; B10-C02; B10-C04A;
 B14-A01; B14-G02D; B14-H01A; B14-S11C; D05-H07;
 D05-H10

TECH UPTX: 20020204

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compounds: (I) are bicyclic dicarboxylic acid derivatives of formula (I') or (I'').

R2, R4 = H; or together form O or NR10;

R10 = 1-6C alkyl;

R1, R3, R'1, R'2 = H or 3-8C linear, branched or cyclic alkyl

(optionally substituted, specifically by halo, NH2, CN, COOH, 1-6C alkoxy or OH); or

R1 + R3 or R'1 + R'2 = group completing a 5-7 membered unsaturated heterocycle (containing 1-3 of N, S and/or O) or a 4-6 membered carbocycle;

Z' = O, S, NR5, CR6R7 or CR6R7CR8R9;

R5 = H or 1-5C alkyl;

R6 - R9 = H or 1-6C alkyl;

B' = immunomodulator (component (b)), having a primary or secondary amine function;

K = covalently bonded, specific or non-specific cell recognition component (c); and

T = as for K; or 3-8C linear, branched or cyclic alkyl (optionally substituted, specifically by halo, NH2, CN, COOH or a sugar residue).

Preferably in (I''):

R'1, R'2 = H;

T = H or -CH₂NHCO-mC₆H₄-B(OH)₂;

Z' = O;

K = B(OH)₂.

Preparation: Preparation of (I'; R₂, R₄ = H) or (I'') involves:

- (a) reacting a diene of formula (III) with maleic anhydride; and
- (b) incubating the obtained anhydride of formula (IV) (optionally after catalytic hydrogenation of the double bond) with a bio-specific compound having a primary or secondary amine function, (claimed).

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The immunomodulator (b) is a cytokine, chemokine, monokine, lymphokine, interferon, immunoregulation-related cell surface protein or protein (specifically a transcription factor) activating the previously mentioned immunomodulators (or a derivative or fragment), preferably an interleukin, especially IL-2. The cell surface binding component (c) is an antibody, lectin, carbohydrate, binding partner of a membrane receptor or ligand (or a derivative or fragment), liposome, or cell-recognizing boronic acid or aryl boronic acid. A further component (d) is optionally covalently coupled to (I) (preferably via (b)), (d) specifically being a bioactive compound such as a growth factor, immunomodulator (the same as or different from (b)), angiogenesis or anti-angiogenesis factor, signal transduction inhibitor, enzyme inhibitor, apoptosis inducer, antibiotic, chemotherapeutic agent, radiochemotherapeutic agent or marker (e.g. a fluorescent marker). (I) may be oligomerized (specifically di-, tri-, tetra- or pentamerized). In the (I)-cell adducts, the cells are specifically tumor cells, or human immune cells, especially dendritic cells or B- or T-lymphocytes; and two or more compounds (I) (specifically containing different immunomodulators) may be coupled to the cells.

ABEX UPTX: 20020204

SPECIFIC COMPOUNDS - Two compounds (I) are disclosed, e.g. the interleukin-2 **conjugates** of the maleic anhydride **Diels-Alder** adducts of 2-furyl-boronic acid and 5-(N-(3-hydroxyborylphenyl)-N-acetylamino)-2-furyl-boronic acid.

ADMINISTRATION - (I) (or the (I)-based vaccines) are administered orally, intratumorally or preferably parenterally. No dosage ranges are given in the source material.

EXAMPLE - A solution of 2-furyl-boronic acid (10.0 g) in diethyl ether/tetrahydrofuran (1/1; 100 ml) was treated with maleic anhydride (8.064 g), reacted for 20 hours and evaporated to give 15 g (83.3%) of the **Diels-Alder** adduct. The adduct (10 microg) was incubated with interleukin-2 (100 microg) in 10 mM phosphate buffer (20 microl; pH 7.5) for 30 minutes at room temperature. The solution was filtered via an amino-doped cellulose micro-filter into 1% human serum albumin solution (to remove excess reactive anhydride) then lyophilized in portions.

L242 ANSWER 99 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-390266 [41] WPIX

DOC. NO. NON-CPI: N2001-287155

DOC. NO. CPI: C2001-118906

TITLE: Parallel detection of compositions with desired characteristics by magnetic resonance imaging spectroscopy, e.g. for identifying catalysts and genes associated with disease.

DERWENT CLASS: B04 D16 E19 H04 J04 S01 S03 S05

INVENTOR(S): HUISMAN, G W; SELIFONOV, S A

PATENT ASSIGNEE(S): (HUIS-I) HUISMAN G W; (SELI-I) SELIFONOV S A; (MAXY-N)
MAXYGEN INC
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2001044828	A1	20010621	(200141)*	EN	89	G01R033-46	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
US 2001024796	A1	20010927	(200159)			G01N033-53	
AU 2001021056	A	20010625	(200162)			G01R033-46	
EP 1242832	A1	20020925	(200271)	EN		G01R033-46	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR							
US 2003049867	A1	20030313	(200321)			C12Q001-68	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001044828	A1	WO 2000-US34085	20001215 <--
US 2001024796	A1 Provisional	US 1999-172394P	19991217 <--
	Provisional	US 2000-220921P	20000726 <--
		US 2000-738544	20001215 <--
AU 2001021056	A	AU 2001-21056	20001215 <--
EP 1242832	A1	EP 2000-984439	20001215 <--
		WO 2000-US34085	20001215 <--
US 2003049867	A1 Provisional	US 1999-172394P	19991217 <--
	Provisional	US 2000-220921P	20000726 <--
	Cont of	US 2000-738544	20001215 <--
		US 2002-247421	20020919

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001021056	A Based on	WO 2001044828
EP 1242832	A1 Based on	WO 2001044828

PRIORITY APPLN. INFO: **US 2000-220921P**
20000726; US
1999-172394P 19991217;
US 2000-738544
20001215; US 2002-247421
20020919

INT. PATENT CLASSIF.:

MAIN: C12Q001-68; G01N033-53; G01R033-46
SECONDARY: B01L003-00; C12N005-10; C12N015-00; G01N024-08;
G01N033-48; G01N033-50; G01N033-543; G01R033-485;
G06F019-00

BASIC ABSTRACT:

WO 200144828 A UPAB: 20010801
NOVELTY - Methods for parallel detection of compositions with desired characteristics by magnetic resonance imaging (MRI) spectroscopy, are new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the

following:

- (1) a method (I) of screening samples for a selected property (SP):
 - (i) providing an artificially generated physical array (PA) comprising 1 or more samples at a number of spatial locations (SL);
 - (ii) placing the PA in a magnetic field (MF) or applying a MF to the PA; and
 - (iii) performing magnetic resonance imaging (MRI) on the samples on the PA to identify the SL for each of the samples having 1 or more MRI detectable chemical shifts (CS) which correspond to the SP;
- (2) an apparatus (II) for screening a number of samples, comprising:
 - (a) a MRI spectrometer; and
 - (b) at least 1 microwell or plate or other artificially generated PA (during operation of the apparatus, the microwell plate or PA is positioned in a magnetic field produced by the MRI spectrometer);
- (3) a method (III) of identifying metabolic disorder genes, comprising:
 - (a) providing a number of cells comprising a library of mutated cells or which have been transformed with a plasmid containing members from a library of gene sequences (the cells produce metabolites);
 - (b) performing MRI spectroscopy on the cells or on the metabolites to detect them; and
 - (c) identifying the cells that produce a reduced or increased level of metabolites compared to a standard, to identify metabolic disorder genes;
- (4) a method (IV) for identifying a modulatory compound, comprising:
 - (a) steps (a) and (b) from (III);
 - (b) identifying the cells that produce a reduced or increased level of metabolites compared to a standard;
 - (c) screening potential inhibitory compounds by MRI spectroscopy for alleviation of the reduced or increased level of the metabolites; and
 - (d) identifying potential modulatory compounds that alleviate the reduced or increased level of metabolites to identify a modulatory compound;
- (5) a method (V) of identifying a catalyst, comprising:
 - (a) providing a number of assay solutions comprising at least 1 reactant;
 - (b) providing a number of catalysts;
 - (c) combining the assay solutions and the catalyst;
 - (d) performing MRI spectroscopy on the assay solutions to detect products generated by action of the catalysts on the reactants; and
 - (e) identifying catalysts that alter the level of products to identify catalysts for those reactants; and
- (6) a method (VI) of optimizing a reaction condition for a catalyst, comprising:
 - (a) providing a number of assay solutions comprising a reactant and a catalyst;
 - (b) exposing the assay solutions to a number of reaction conditions;
 - (c) performing MRI spectroscopy on the assay solutions to detect products generated by action of the catalyst on the reactant;
 - (d) identifying reaction conditions that alter the level of the products; and
 - (e) analyzing the reaction conditions to optimize them for the catalyst.

USE - The methods are used for performing high-through put MRI spectroscopy, e.g. to screen libraries of chemical or biological compositions for a compound of interest. They may be used to identify metabolic disorder genes, modulatory compounds and catalysts and for optimizing reaction conditions (claimed).

ADVANTAGE - The methods may be used for high through-put screening assays.

Dwg.0/10

FILE SEGMENT: CPI EPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: B04-C01; B04-C02; B04-C03; B04-E01; B04-F0100E;
 B04-L01; B04-M01; B04-N04; B04-N0400E; B11-C08A;
 B11-C08E; B11-C08E1; B11-C08E3; B12-K04A; B12-K04A3;
 B12-K04E; D05-A02; D05-H02; D05-H08; D05-H09;
 D05-H10; D05-H12; D05-H14; D05-H14A;
 D05-H17; D05-H18; E07-D06; E10-A07; E10-B02D;
 E10-C02A; E10-C02D2; E10-C04D4; E10-C04D5; E10-E04H;
 E11-Q03B; H04-E; H04-F02E; J04-B01A
 EPI: S01-E02A2; S03-E07A; S05-D02B1

TECH UPTX: 20010801

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Methods and Apparatus: Each sample comprises 1 or more atomic nuclei (AN) and performing MRI comprises:

- (a) exciting the AN to produce signals;
- (b) detecting the signals;
- (c) generating 1 or more images from the signals (the images correspond to the SLs);
- (d) analyzing the images for the presence of selected CSs which correspond to the SP; and
- (e) de-convoluting the images and the CSs to provide the SL for each of the samples with the SP.

The PA comprises a uniform array. The method further comprises positioning the samples of the PA in 1 or more planes. The PA comprises a cylindrical array (24 cm in length and 20 cm in diameter), a square array, a cubical array or a rectangular array, and/or is positioned within a similarly shaped structure. (I) Further comprises constructing the PA to comprise 1 or more microwell plates (24-, 96-, 384-, or 1536-well plates) and/or paraffin-filled outer walls. The method further comprises surrounding the PA with water. The method comprises providing 24, 48, 72, 96, 192, 288, 384, 768, 1152 or 1536 different SLs. 12 To 10000 (preferably 24, 48, 72, 96, 192, 288, 384, 768, 1152, 1536, 3072, 4068 or 6144) samples are used. The samples comprise a library of biological compositions, especially a library of mutated cells, expression products or variant genes (the method further comprises generating the library of variant genes by DNA shuffling, random mutagenesis or combinational gene assembly) that produce expression products. The samples may also be MRI-active compounds, chiral shift reagents, chemical catalysts, microbial cell cultures, cell biomass, a culture broth, an extract, a reaction mixture, a chemical catalyst mixture, a plant tissue sample, a fruit sample, a root sample, a tuber sample, plant seeds and/or paramagnetic or ferromagnetic ions and the SP is metal uptake.

Each sample has a standard volume (1 microl to 20 ml, preferably 1.5 to 2.0 ml), size and geometry.

The SP is:

- (i) a selected pH and performing MRI comprises measuring a phenolic proton signal corresponding to each sample; or
- (ii) a selected amount of a compound of interest (an alcohol, a polyol, a carboxylic acid, a lactone, an ester, a polyhydroxyalkanoate, a terpenoid, a carotenoid, a steroid, a polyketide, a lipid, a triglyceride, an aromatic, an amino acid, an alkene, a vitamin, a halogenated organic compound, a benzene bioconversion product, a toluene bioconversion product, an ethylbenzene bioconversion product, a xylene bioconversion product, a monosaccharide and/or a polysaccharide and in particular lactate, citrate, tylosin, 1,3-propanediol, succinate, glycerol, itaconate, PHB/PHA, lysine, threonine, isoleucine, methionine, tryptophan, phenylalanine, tyrosine, valine, glutamate, aspartate, histidine, phytohaemagglutinin-A, phytohaemagglutinin-B, p-hydroxybenzoate,

3-hydroxybutyrate, aspartame and/or epsilon-caprolactone) or the presence of a compound of interest in the samples.

Step (iii) comprises providing a comparison of the absolute or relative amount of the compound of interest in each sample. Step (iii) comprises simultaneously measuring 1 or more selected chemical shifts for each of the samples and the selected chemical shifts correspond to the selected property.

The sample may comprise microbial strains expressing a library of shuffled genes, a genomic library, or a library of mutated cells and performing MRI comprises comparing an expression level for each member of the library of shuffled genes or of the genomic library. Step (iii) comprises comparing the performance of a selected composition under different conditions and/or comprises applying spiral-based K-based trajectories.

The magnetic field has a magnetic field strength of 1.5 Tesla or more.

The method further comprises screening the samples at a rate of 3000 (preferably 20000) to 50000 samples per hour.

(II) Further comprises an automatic sampler coupled to the MRI-spectrometer (which positions the microwell-plate or PA within the MRI spectrometer), a detector coupled to the spectrometer (which detects signals generated by operation of the MRI-spectrometer) and a computer and software for recording and analyzing data from the MRI-spectrometer.

In (III) the disorder is colon cancer, batten disease, deafness distonia syndrome or lupus nephritis.

In (IV), step (c) comprises:

(i) incubating the cells with a number of potential modulatory compounds;
(ii) performing MRI spectroscopy on the cells or on the metabolites to detect the metabolites produced by the cells in the presence of the potential modulatory compounds; and

(iii) comparing the metabolites produced by the cells in the presence of the modulatory compounds with the metabolites produced in step (a).

The method comprises quantifying the amount of metabolite produced in the presence of the modulatory compounds. The potential modulatory compounds are peptides, proteins, metabolic products, carbohydrates, lipids, nucleic acids, nucleotides, oligonucleotides and/or small organic molecules.

The cells are yeast cells, bacterial cells, plants cells, tissue cultures, callus cultures, insect cells, germinating seeds, hatching egg cells and/or developing embryo cells. Preferably they are mutant *Saccharomyces cerevisiae* cells. The standard comprises non-mutant cells.

The library of sequences comprises 1000 to 100000 or more members, and the method may further comprise generating them by DNA shuffling, random mutagenesis, transposon mutagenesis, and/or combinatorial gene assembly.

The library comprises colon cancer genes, batten disease genes, deafness distonia genes and/or lupus nephritis genes. The library comprises a number of related gene sequences comprising 1 or more colon cancer, batten disease, deafness distonia syndrome or lupus nephritis genes. The

metabolites comprise 1 or more MRI-active compound. (an alcohol, a polyol, a carboxylic acid, a lactone, an ester, a polyhydroxyalkanoate, a terpenoid, a carotenoid, a steroid, a polyketide, a lipid, a triglyceride, an aromatic, an amino acid, an alkene, a vitamin, a halogenated organic compound, a benzene bioconversion product, a toluene bioconversion product, an ethylbenzene bioconversion product, a xylene bioconversion product, a monosaccharide and/or a polysaccharide and in particular ethanol, lactate, citrate, tylosin, 1,3-propanediol, succinate, glycerol, itaconate, PHB/PHA, lysine, threonine, isoleucine, methionine, tryptophan, phenylalanine, tyrosine, valine, glutamate, aspartate, histidine, phytohaemagglutinin-A, phytohaemagglutinin-B, p-hydroxybenzoate, 3-hydroxybutyrate, aspartame and/or epsilon-caprolactone. The metabolites may be produced by a number of cells and the method comprises quantifying the amount of metabolites produced by each cell by MRI at a rate of 3000 to 50000 or more in 1 hour.

In (V) the catalyst may be biological or chemical, especially cells or a library of compounds. The action of the catalyst comprises oxidation, reduction, addition, **cycloaddition**, elimination, polymerization, depolymerization, isomerization, cyclization, hydrogenation and/or reductive alkylation. Identification of the catalyst comprises analyzing product yields, compositions, reaction selectivity, catalyst stability, catalyst poisoning or combinations.

In method (VI) the reaction conditions comprise catalyst concentration, activating agents, deactivating agents, assay solution pH, pressure temperature, electromagnetic radiation, reactant composition, length of reaction time and/or stop reagents. Analysis comprises determining a window of operation for the catalyst.

ABEX UPTX: 20010801

EXAMPLE - No example given.

L242 ANSWER 100 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-168320 [17] WPIX

CROSS REFERENCE: 2002-434869 [46]; 2003-237971 [23]; 2004-051039 [05]

DOC. NO. NON-CPI: N2001-121410

DOC. NO. CPI: C2001-050187

TITLE: Composition for attachment of biomolecules to solid supports, polymer hydrogels, and hydrogel arrays, comprises using photocycloaddition between reactive sites on the support and biomolecules.

DERWENT CLASS: A14 A96 B04 D16 S03

INVENTOR(S): BEUHLER, A; BRUSH, C K; JOHNSON, T; LAJOS, R E; MCGOWEN, J

PATENT ASSIGNEE(S): (MOTI) MOTOROLA INC; (AMSH) AMERSHAM BIOSCIENCES AB

COUNTRY COUNT: 93

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2001001143	A2	20010104	(200117)*	EN	46	G01N033-543	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ							
NL OA PT SD SE SL SZ TZ UG ZW							
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE							
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR							
LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK							
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
AU 2000056362	A	20010131	(200124)				
EP 1190254	A2	20020327	(200229)	EN			
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT							
RO SE SI							
US 6372813	B1	20020416	(200232)			C08J003-28	
US 2003078314	A1	20030424	(200330)			C08J003-28	
JP 2003524150	W	20030812	(200355)		54	G01N033-53	
AU 768326	B	20031211	(200404)			G01N033-543	
US 6686161	B2	20040203	(200413)			C08J003-28	
EP 1190254	B1	20040915	(200460)	EN		G01N033-543	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE							
DE 60013826	E	20041021	(200469)			G01N033-543	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001001143	A2	WO 2000-US17422	20000623 <--
AU 2000056362	A	AU 2000-56362	20000623 <--
EP 1190254	A2	EP 2000-941693	20000623 <--

US 6372813	B1	WO 2000-US17422	20000623	<--
US 2003078314	A1 Div ex	US 1999-344620	19990625	<--
		US 1999-344620	19990625	<--
		US 2001-976986	20011011	
JP 2003524150	W	WO 2000-US17422	20000623	<--
		JP 2001-507097	20000623	<--
AU 768326	B	AU 2000-56362	20000623	<--
US 6686161	B2 Div ex	US 1999-344620	19990625	<--
		US 2001-976986	20011011	
EP 1190254	B1	EP 2000-941693	20000623	<--
		WO 2000-US17422	20000623	<--
DE 60013826	E	DE 2000-00013826	20000623	<--
		EP 2000-941693	20000623	<--
		WO 2000-US17422	20000623	<--

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000056362	A Based on	WO 2001001143
EP 1190254	A2 Based on	WO 2001001143
US 2003078314	A1 Div ex	US 6372813
JP 2003524150	W Based on	WO 2001001143
AU 768326	B Previous Publ.	AU 2000056362
	Based on	WO 2001001143
US 6686161	B2 Div ex	US 6372813
EP 1190254	B1 Based on	WO 2001001143
DE 60013826	E Based on	EP 1190254
	Based on	WO 2001001143

PRIORITY APPLN. INFO: **US 1999-344620**
19990625; US 2001-976986
 20011011

INT. PATENT CLASSIF.:
 MAIN: C08J003-28; G01N033-53; G01N033-543
 SECONDARY: C08H001-00; C08H005-04; C12M001-00; C12N011-00;
 C12N011-06; C12N015-09; C12Q001-00; G01N033-545;
 G01N037-00

BASIC ABSTRACT:

WO 200101143 A UPAB: 20041027
 NOVELTY - A composition comprising solid supports, optionally polymer-coated, attached to biomolecules by 2 + 2 **cycloaddition** between reactive sites on the support or polymer and the biomolecules, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (a) attaching 1 or more biomolecules to a solid support or polymer hydrogel or hydrogel array, using a 2 + 2 photocycloaddition (PCA);
- (b) preparing a hydrogel array by simultaneously crosslinking the hydrogel and attaching 1 or more biomolecules using PCA; and
- (c) preparing a solid support having 1 or more biomolecules attached, by:
 - (i) treating the solid support with a coupling agent to attach 1 or more amine groups to the surface of the solid support;
 - (ii) attaching to the solid support via the amine groups, 1 or more reactive sites capable of PCA; and
 - (iii) contacting the product from (ii) with 1 or more biomolecules having 1 or more reactive sties capable of PCA.

USE - The composition is for use as solid supports for attaching biomolecules to (claimed).

Dwg.0/8

FILE SEGMENT: CPI EPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: A10-E01; A12-W11L; B04-C03; B04-E01; D05-H10
EPI: S03-E14H4

TECH UPTX: 20010328

TECHNOLOGY FOCUS - POLYMERS - Preferred Compounds: The polymer is a polymer or copolymer made of at least 2 comonomers where at least 1 of the comonomers can react via PCA. Preferably the polymer or copolymer has been chemically modified to contain a reactive group.

The reactive site present on the polymer and/or the reactive site on the biomolecule contains an electron deficient alkene group, e.g. dimethyl maleimide, maleimide, thymine, polythymine, acrylate, cinnamate or citraconimide.

The biomolecule comprises a nucleic acid fragment containing less than 1000 nucleotides and optionally further comprising a spacer region.

Preferred Support: The solid support is nylon, polystyrene, glass, latex, polypropylene or activated cellulose, e.g. a bead, membrane, microwell, centrifuge tube or slide.

ABEX UPTX: 20010328

EXAMPLE - Copolymer polyacrylamide coglycidyl methacrylate was modified with acrylic acid to form a photoreactive polyacrylamide reactive prepolymer. The prepolymer was coated on a solid support and exposed to ultra-violet (UV) radiation through a mask to photocrosslink in an array pattern of 100 micrometer diameter pads spaced at 300 micrometer pitch. The unexposed polymer was washed away in aqueous solution, leaving a grid of hydrogel pads. The pads contained unreacted acrylate functional groups as attachment sites for biomolecules. A solution containing a 300 micro Molar aqueous solution of maleimide functionalized DNA oligonucleotide and 0.1 % anthraquinone 2-sulfonic acid sodium salt as photosensitizer, was dispensed onto individual pads. The hydrogel was maintained at the dew point and exposed to UV radiation for 60 seconds, resulting in attachment of the DNA via 2 + 2 **cycloaddition** of the maleimide in the DNA to the acrylate in the polymer. The hydrogel was washed to remove unreacted DNA oligonucleotide.

L242 ANSWER 101 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-158372 [16] WPIX

DOC. NO. CPI: C2001-046918

TITLE: Methods of making arrays of polymeric compounds including polydeoxyribonucleotides useful e.g. in gene expression analysis, drug screening, nucleic acid sequencing and mutation analysis.

DERWENT CLASS: B04 D16

INVENTOR(S): PERBOST, M G M

PATENT ASSIGNEE(S): (AGIL-N) AGILENT TECHNOLOGIES INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 6171797	B1	20010109	(200116)*		11	C12Q001-38	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6171797	B1	US 1999-421952	19991020 <--

PRIORITY APPLN. INFO: **US 1999-421952**
19991020

INT. PATENT CLASSIF.:

MAIN: C12Q001-38

SECONDARY: C07H021-02; C07H021-04; C12P019-34

BASIC ABSTRACT:

US 6171797 B UPAB: 20010323

NOVELTY - Making an array (M1) of polymeric compounds covalently bonded to a solid support comprises contacting a surface of the support (having a **cycloaddition** reactive group and a contact angle of 20 deg. to 100 deg.) with the polymeric compounds under conditions which allow the polymers to bond to the surface by the **cycloaddition** reaction.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(i) producing an array (M2) of nucleic acids covalently bonded to the surface of a solid support comprising contacting a surface of the support (having a **cycloaddition** reactive group and a contact angle of 20 deg. to 100 deg.) with the nucleic acid under conditions which allow the nucleic acids to bond to the surface by a **Diels-Alder** reaction;

(ii) producing an array (M3) of polydeoxyribonucleotides covalently bonded to the surface of a solid support comprising contacting a surface of the support (having a **cycloaddition** reactive group and a contact angle of 20 deg. to 100 deg.) with the polydeoxyribonucleotides under conditions which allow the polydeoxyribonucleotides to bond to the surface by a **Diels-Alder** reaction of a diene terminus of the nucleotide with a **dienophile** on the surface;

(iii) making a polymeric array (M4) of spots with a diameter of 10 to 1000 μm containing polymers on the surface of a solid support comprising depositing 1nl to 1 μl of a composition containing the polymers so that they can react by a **cycloaddition** reaction;

(iv) making an array (M5) of spots with a diameter of 10 to 1000 μm containing nucleic acids on the surface of a solid support comprising depositing 1nl to 1 μl of a composition containing the nucleic acids so that they can react by a **Diels-Alder** reaction;

(v) making an array (M6) of spots with a diameter of 10 to 1000 μm containing polydeoxyribonucleotides on the surface of a solid support comprising depositing 1nl to 1 μl of a composition containing the polydeoxyribonucleotides so that they can react by a **Diels-Alder** reaction.

USE - The arrays produced are useful e.g. in gene expression analysis, drug screening, nucleic acid sequencing and mutation analysis.

ADVANTAGE - The invention provides a new protocol for producing nucleic acid arrays.

Dwg.0/2

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: B04-C03; B04-C03B; B04-E01; B12-K04; B12-K04F;
D05-H09; **D05-H10**; D05-H12; D05-H18

TECH UPTX: 20010323

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The **cycloaddition** reaction is preferably reaction of a diene with a **dienophile** to produce a 6-membered ring. The polymers are preferably nucleic acids, especially a polydeoxyribonucleotide. The polymer may be deposited on the surface as an aqueous composition by drop deposition, especially from an inkjet device. The contact angle preferably ranges from 40 to 100 degrees and 60 to 100 degrees for (M6).

ABEX UPTX: 20010323

EXAMPLE - A concentrated solution of SiCl_4 in toluene at 0 degrees centigrade was treated dropwise with a solution of 2,4-hexadiene-1-ol in toluene. The mixture was stirred at room temperature for 1 hour,

concentrated and distilled under vacuum. Glass slides were washed with nitric acid for 10 minutes and then with water. The slides were cured in an oven at 150 degrees centigrade for 4 hours and put in a glass reactor containing 1% silylating agent in toluene. The reaction was left at 90 degrees centigrade for 4 hours and the slide was washed with toluene and cured at 150 degrees centigrade for 2 hours. A solution of the oligonucleotide in aqueous phosphate buffer (pH 6.8) was deposited on the surface and after 15 minutes was washed.

L242 ANSWER 102 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-608989 [70] WPIX
 CROSS REFERENCE: 2001-592586 [67]; 2002-036638 [05]
 DOC. NO. NON-CPI: N2001-454783
 DOC. NO. CPI: C2001-181252
 TITLE: Immobilization of a DNA fragment on a solid carrier surface for preparation of DNA chip without blocking processes.
 DERWENT CLASS: A89 B04 D16 J04 S03
 INVENTOR(S): NAKAMURA, K; NISHIGAKI, J; SATO, T; SHINOKI, H
 PATENT ASSIGNEE(S): (FUJF) FUJI PHOTO FILM CO LTD; (NAKA-I) NAKAMURA K; (NISH-I) NISHIGAKI J; (SATO-I) SATO T; (SHIN-I) SHINOKI H
 COUNTRY COUNT: 2
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
JP 2001178459	A	20010703	(200170)*		9	C12N015-00	
US 2002103348	A1	20020801	(200253)			C07H021-02	
US 2004096838	A1	20040520	(200434)			C12Q001-68	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE	
JP 2001178459	A	JP 1999-371330	19991227	<--
US 2002103348	A1	US 2000-749714	20001227	<--
US 2004096838	A1 Div ex	US 2000-749714	20001227	<--
		US 2002-326350	20021220	

PRIORITY APPLN. INFO: JP 1999-371330
 19991227; JP
 1999-371072 19991227;
 JP 1999-371331
 19991227

INT. PATENT CLASSIF.:

MAIN: C07H021-02; C12N015-00; C12Q001-68
 SECONDARY: B05D003-00; C07H021-04; C12M001-34; C12N011-02;
 G01N033-53; G01N033-547; G01N033-566

BASIC ABSTRACT:

JP2001178459 A UPAB: 20040527
 NOVELTY - DNA chips without requiring blocking processes, are new.
 DETAILED DESCRIPTION - Immobilization of a DNA fragment on a solid carrier surface comprises:
 (i) contacting a solid phase carrier with a reactive component in a cyclic addition reaction on the surface and a DNA fragment having a reactive component of the other cyclic addition reaction in a liquid phase; and
 (ii) causing a cyclization addition reaction to form a covalent bond in which one reactive component has a diene structure and the other

reactive component has a **dienophile** structure.

An INEXPEDIENT CLAIM is also included for a DNA chip prepared by the above mentioned method, used for detection of a nucleic acid fragment having a complementary property to the DNA fragment on the DNA chip, comprising:

- (a) the addition of an aqueous solution containing a nucleic acid fragment with labeled a fluorescent material or a radioactive material;
- (b) hybridization of the immobilized DNA fragment in the DNA chip and a complementary nucleic acid fragment to immobilize on the DNA chip; and
- (c) detection of the labeled nucleic acid sample immobilized on the DNA chip, particularly by electrochemical detection of the DNA fragment via current in a conductive group in an intercalator in the hybrid structure composed of the DNA fragment of DNA chip and a nucleic acid fragment sample.

USE - Detection of the DNA fragment.

ADVANTAGE - Stable and rapid immobilization of a DNA fragment on a solid phase carrier for sensitive detection of a sample nucleic acid fragment.

Dwg.0/0

FILE SEGMENT: CPI EPI
 FIELD AVAILABILITY: AB; DCN
 MANUAL CODES: CPI: B04-D02; B04-E01; B11-C07B3; B11-C07B5; B11-C08B;
 B11-C08E; B12-K04F; D05-H09; **D05-H10**;
 D05-H12D1
 EPI: S03-E14H4
 TECH UPTX: 20011129
 TECHNOLOGY FOCUS - BIOTECHNOLOGY - Detection of the nucleic acid fragment complementary to the DNA fragment on DNA chip.
 ABEX UPTX: 20011129
 EXAMPLE - No suitable example was provided.

L242 ANSWER 103 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-063402 [09] WPIX
 DOC. NO. CPI: C2002-018221
 TITLE: Analysis of sequence variations of DNA sample by using chips with photocleavable oligonucleotide probes, modifying probes using templates containing target sequences and detecting target sequences by mass spectrometry.
 DERWENT CLASS: B04 D16
 INVENTOR(S): HAUSCH, F; JAESCHKE, A; JASCHKE, A
 PATENT ASSIGNEE(S): (HAUS-I) HAUSCH F; (JAES-I) JAESCHKE A; (BRUK-N) BRUKER DALTONIK GMBH; (BRUK-N) BRUKER-SAXONIA ANALYTIK GMBH; (JASC-I) JASCHKE A
 COUNTRY COUNT: 27
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 1138782	A2	20011004	(200209)*	EN	11	C12Q001-68	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR							
DE 10015797	A1	20011004	(200209)			C12Q001-68	
US 2001038070	A1	20011108	(200209)			H01J049-00	
DE 10015797	B4	20060202	(200612)			C12Q001-68	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

EP 1138782	A2	EP 2001-106974	20010321	
DE 10015797	A1	DE 2000-10015797	20000326	<--
US 2001038070	A1	US 2001-817905	20010326	
DE 10015797	B4	DE 2000-10015797	20000326	<--

PRIORITY APPLN. INFO: **DE 2000-10015797**
20000326

INT. PATENT CLASSIF.:

MAIN: C12Q001-68; H01J049-00
SECONDARY: B01D059-44; C07H021-00; G01N027-62

BASIC ABSTRACT:

EP 1138782 A UPAB: 20020208

NOVELTY - Analysis (I) of sample of genetic material for sequence information contained in large set of target sequences (TS) comprises using chips with spatially separated, photocleavable oligonucleotide probes (ONP) for each TS and performing multiplex sequence-dependent modifications of ONP which enables mass spectrometric detection of TS variations.

DETAILED DESCRIPTION - Analysis (I) of sample of genetic material for sequence information contained in large set of target sequences (TS) comprises using chips with spatially separated, photocleavable oligonucleotide probes (ONP) for each TS and performing multiplex sequence-dependent modifications of ONP which enables mass spectrometric detection of TS variations by measuring masses of modified, detached ONP directly on chip.

In detail (I), comprises:

(1) producing an amount of nucleic acid templates containing TS by multiplexed amplification of the sample of genetic material;

(2) using a chip with spatially separated locations containing a photocleavable ONP each for each TS to be investigated, the probes covalently bound to the chip surface;

(3) modifying, in a single reaction vessel and by using the nucleic acid templates produced, all ONP on the chip synchronously in a template-dependent manner so that the information under investigation is transferred from TS of the templates to the probes;

(4) cleaving and mass spectrometrically measuring the spatially separated probes; and

(5) extracting the detailed sequence information from the mass measurements of the probes.

An INDEPENDENT CLAIM is also included for a nucleic acid chips with photocleavable ONP.

USE - The method is useful for analysis of variations in distinct nucleic acid sequences within a complex nucleic acid mixture.

ADVANTAGE - Probes are cleaved and analyzed by laser desorption mass spectrometry. This allows highly parallel and sequence-specific reactions within a single reaction mixture.

Dwg.0/4

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: B04-E05; B11-C07B3; B11-C08A; B11-C08E5; B12-K04F;
D05-H09; **D05-H10**; D05-H12D1

TECH UPTX: 20020208

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: The chip carries on its surface, 10-100000 spatially separated, photocleavable ONP. The photocleavage site consists of an o-nitrobenzyl residue. The photocleavable ONP is connected additionally to the surface by a spacer in such a way that the enzymatic modification of the probes is facilitated. The probes are immobilized in an array format on the surface of the chip as photocleavable oligonucleotide **conjugates** carrying an

additional functional group, such as amino, sulfhydryl, carboxyl group, biotin, anthracene or a **diene**, for immobilization. The photocleavable ONP is synthesized directly on the surface and initially the photocleavable sites are synthesized in unison, and then if necessary the spacers are synthesized. TS are amplified before analysis in a single-vessel reaction. The modification of the photocleavable ONPs occurs by a template-dependent primer elongation and at least one dideoxynucleotide is inserted during the template-dependent primer ligation of the probes or by a template-dependent ligation using suitable reporter oligonucleotides. The template specificity of the ligation is raised additionally by the sequence of the reporter oligonucleotides. The insertion and deletion mutations are analyzed in particular by the additional template specificity of the reporter oligonucleotides which carry an additional recognition group such as mass, fluorescence or affinity marker or a photoactive group. The hybridization of TS to the photocleavable ONP and their template-dependent modification are performed cyclically a number of times.

The enzymes utilized are heat stable and the reaction mixture can be repeatedly warmed directly on the chip. The modification of the photocleavable probe can also be performed by a template-dependent, endonucleolytic cleavage which is performed by restriction enzymes. The methylation patterns of TS are analyzed by a template-dependent restriction digest of the photocleavable probes. The endonucleolytic cleavage occurs using a single strand specific nuclease or double strand specific nuclease, preferably RNaseH. The single strand mismatches of hybridizations between probes and TS are identified by template-dependent nuclease digests of the photocleavable probes. The photocleavable ONP can contain at least one ribonucleotide which can only be template-dependently digested when there is perfect base pairing, leading to detection of the mismatch in the photocleavable probes.

The mass of the probes is measured in a time-of-flight (TOF) mass spectrometer by ionization through laser desorption pulses. The immobilized probes on the solid substrates are purified from contaminations and released from the template nucleic acid by intensive and if necessary, denaturing washing after modification. The probes are released from the solid substrate by irradiation after modification and purification and are made accessible for mass spectrometric analysis by MALDI-TOF (matrix assisted laser desorption/ionization-TOF). The photolytic cleavage of ONP from the solid substrate surface occurs simultaneously with their desorption and ionization in the laser desorption pulse. The probes are immobilized on a surface suitable for MALDI-TOF spectrometry, the modification of the probes occurs at this surface, and the photolytic release occurs during the MALDI-TOF measurement.

ABEX

UPTX: 20020208

EXAMPLE - For multiplex sequencing of different sequences of a genetic sample, a set of photocleavable oligonucleotide probes was first synthesized by classical solid phase synthesis, such that one probe was hybridized to the target sequences at intervals of 50 nucleotides. The anthracene polyethylene glycol, the hexaethylene glycol spacer and the photocleavable o-nitrobenzyl residue were incorporated as corresponding derivatized phosphoramidites. An amino derivatized surface was functionalized evenly by treatment with 0.1 M maleinimidylhexanoate-NHS ester in N,N-dimethylformamide (DMF) over the entire surface. The anthracene functionalized oligonucleotide probes were then pipetted onto this maleinimide surface in 10 nl volumes in an array format. The chip was freed of non-immobilized oligonucleotide probes by washing after overnight incubation. A genetic region from a biological sample, containing 250000 base pairs (bp) was amplified by cloning and purified by standard procedures. The DNA obtained was distributed among four of the chips and

mixed with a sequencing mixture (sequenase, dATP, dGTP, dCTP, dTTP as well as each type of ddNTP). After 30 cycles of 15 seconds at 95 degrees Centigrade, 15 seconds at 55 degrees Centigrade, and 30 seconds at 72 degrees Centigrade, the chip was washed with 25% dimethylsulfoxide (DMSO) and 0.2 M ammonium hydroxide solution. Using a Nd-YAG laser the individual points were stimulated one after another at a wavelength of 355 nm and the released oligonucleotide probes were measured by matrix assisted laser desorption/ionization-time-of-flight (MALDI-TOF) mass spectrometry. The measured sequence ladders of the respective terminator nucleotides were evaluated using integrated software, where the termination products were checked by measuring their mass and if necessary corrected. The total sequence obtained was compared with already known data and any deviant mutations were recorded.

L242 ANSWER 104 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-572691 [65] WPIX

DOC. NO. NON-CPI: N2001-426933

DOC. NO. CPI: C2001-170393

TITLE: New linker system, useful for attaching biomolecules to surfaces, particularly for diagnostic detection or isolation of components of specific binding pairs.

DERWENT CLASS: B04 D16 L03 S03

INVENTOR(S): ~~KLAPPROTH, H~~

PATENT ASSIGNEE(S): (BIOC-N) BIOCHIP TECHNOLOGIES GMBH; (KLAP-I) KLAPPROTH H;
(MICR-N) MICRONAS HOLDING GMBH

COUNTRY COUNT: 95

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 1132739	A1	20010912	(200165)*	EN	11	G01N033-53	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI							
EP 1132739	B1	20010926	(200165)	EN		G01N033-53	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI							
WO 2001088535	A1	20011122	(200176)	EN		G01N033-53	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
DE 60000014	E	20011122	(200201)			G01N033-53	
AU 2001074042	A	20011126	(200222)			G01N033-53	
ES 2164632	T3	20020301	(200229)			G01N033-53	
US 2003022189	A1	20030130	(200311)			C12Q001-68	
JP 2003533697	W	20031111	(200375)		24	G01N033-543	
US 6921669	B2	20050726	(200554)			G01N033-533	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1132739	A1	EP 2000-110428	20000516 <--
EP 1132739	B1	EP 2000-110428	20000516 <--
WO 2001088535	A1	WO 2001-EP5557	20010516
DE 60000014	E	DE 2000-00000014	20000516 <--
		EP 2000-110428	20000516 <--
AU 2001074042	A	AU 2001-74042	20010516

ES 2164632	T3	EP 2000-110428	20000516	<--
US 2003022189	A1	WO 2001-EP5557	20010516	
		US 2002-30999	20020116	
JP 2003533697	W	JP 2001-584880	20010516	
		WO 2001-EP5557	20010516	
US 6921669	B2	WO 2001-EP5557	20010516	
		US 2002-30999	20020116	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 60000014	E Based on	EP 1132739
AU 2001074042	A Based on	WO 2001088535
ES 2164632	T3 Based on	EP 1132739
JP 2003533697	W Based on	WO 2001088535
US 6921669	B2 Based on	WO 2001088535

PRIORITY APPLN. INFO: **EP 2000-110428**
20000516

INT. PATENT CLASSIF.:

MAIN: C12Q001-68; G01N033-53; G01N033-533; G01N033-543
 SECONDARY: C07K017-04; C12M001-34; G01N033-534; G01N033-535;
 G01N033-542; G01N033-552; G01N033-553; G01N033-566;
 G01N037-00

BASIC ABSTRACT:

EP 1132739 A UPAB: 20011108
 NOVELTY - Linker system (I) used to activate surfaces for conjugation with biomolecules (II).

DETAILED DESCRIPTION - Linkers of formula (I) are new
 X-((Y1)i-Q-(Y2)j)k-Z (I)

X = reactive group that binds covalently to a surface;
 Z = reactive group that binds covalently to (II), but is not the same as X;

Y1, Y2 = CR1R2;
 R1, R2 = H or 1-4C alkyl, alkoxy or acyloxy;
 i, j, k = 1-10, provided that the total number of carbon atoms in Y1, Y2, excluding any in R1 and R2, is 2-100;

Q = hydrophilic atom or group, i.e. O, NH, carbonyl, carbonyloxy or CR3R4; and

R3, R4 = H, OH or 1-4C alkoxy or acyloxy, but not both hydrogen, provisos: when Q = NH, Z is not amino and when k is greater than 1, the Q groups are same or different.

INDEPENDENT CLAIMS are also included for:

- (a) surface carrying (I);
- (b) a method for detecting or isolating a (II) that is one component of a complementary binding system comprising:
 - (i) contacting a surface with a sample suspected to contain the complementary binding partner;
 - (ii) removing non-specifically bound sample components in a washing step; and
 - (iii) detecting the specifically bound sample components; and
- (c) medical or diagnostic instrument that comprises (a).

USE - (I) is used to prepare surfaces for covalent attachment of biomolecules. The surfaces are used for detection and isolation of components of specific binding systems, e.g. as sensor chips or biochips for detection and affinity materials for (chromatographic) isolation, particularly of nucleic acids or antibodies. The chips are useful in medicine and diagnosis for determining analytes in physiological fluids.

ADVANTAGE - (I) can provide negatively or positively charged, or

uncharged, hydrophilic layers, so can be adapted for particular applications. The surface layers are more easily wetted than conventional surfaces, so provide greater density of bound compound and larger dot diameters, thus greater binding to complementary component. This improves precision and/or reduces the space required for serial or parallel determinations. After coating of the surface, no other steps (e.g. coupling to a bifunctional linker) are needed. (I) can be applied by standard printing methods used in preparation of micrometer arrays.

Dwg. 0/0

FILE SEGMENT: CPI EPI
 FIELD AVAILABILITY: AB; DCN
 MANUAL CODES: CPI: B04-B03C; B04-B04C; B04-C02; B04-E01; B04-G01;
 B11-C07A; B11-C08B; B12-K04A; D05-H09;
D05-H10; D05-H11; D05-H12A; D05-H12B;
 L04-E10
 EPI: S03-E14H4

TECH UPTX: 20011108

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred compounds: X = disulfide; thiol; SiW3; or a group able to form free radicals, e.g. anthrathione, anthraquinone and benzophenone or their derivatives; W = hydrolyzable atom or group, e.g. halo, 1-4C alkoxy or acyloxy, or amino; Z = group that can undergo nucleophilic substitution or addition reaction, **Diels-Alder** reaction or radical substitutions, e.g. a reactive double bond, diene group, hydroxy, carboxy, epoxy, iso(thio)cyanate etc.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: (I) is attached so as to form a patterned array, and is covalently linked to (II). Surfaces are particularly of inorganic materials or polymers, especially as an affinity matrix, sensor chip or biochip.

(II) is one component of the pairs: nucleic acid/complement; peptide nucleic acid/nucleic acid; enzyme/substrate; receptor/effector; lectin/sugar; antibody/antigen; or (strept)avidin/biotin. Particularly (II) is (i) an oligonucleotide or aptamer, of RNA or DNA, or (ii) an antibody (mono- or poly-clonal, chimeric or single-chain, including their functional fragments and derivatives.

Preferred Process: Coupling of (II) to the linker is particularly at 40-60degreesC and pH 7-10. A surface of (a) is treated with sample; any non-specifically bound components are removed by washing and specifically bound compounds either detected or recovered by elution, e.g. with a chaotropic agent. Detection is based on a colored, bio- or chemi-luminescent, fluorescent, phosphorescent or radioactive label; enzyme; antibody (or its fragment or derivative); protein A/gold system, (strept)avidin/biotin or an enzyme electrode.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Suitable materials for the surface are silica (on a silicon wafer); glass; quartz; fused silica or gold.

TECHNOLOGY FOCUS - POLYMERS - Suitable materials (disclosed) for the surface are cyclo-olefin polymer; poly(methyl methacrylate); polystyrene; polyethylene and polypropylene.

ABEX UPTX: 20011108

EXAMPLE - Reaction of 1,5-dibromo-3-oxapentane and 1 mole glycidol, then condensation with allyl alcohol and hydrosilylation with trimethoxysilane produced (10-oxiranyl-3,6,9-trioxadecyl) trimethoxysilane. A solution (1 g/l) of this in toluene was applied to a microscope slide for 2 hr, then the slide washed with toluene and heated for 2 hr at 130degreesC. It was then printed with an amino-functionalized oligonucleotide and this fixed by heating for 2 hr at 50degreesC. The amount of oligonucleotide bound was significantly higher than for a similar slide treated with

epoxypropyltrimethoxysilane.

L242 ANSWER 105 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2000-400021 [34] WPIX

DOC. NO. CPI: C2000-120813

TITLE: Process for conjugating a peptide and an oligonucleotide together for use as labels in biotechnology research, in gene function studies and in introducing oligonucleotides into cells.

DERWENT CLASS: B04 D16

INVENTOR(S): PICKEN, D J

PATENT ASSIGNEE(S): (LINK-N) LINK TECHNOLOGIES LTD

COUNTRY COUNT: 90

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2000031102	A1	20000602	(200034)*	EN	38	C07H021-00	<--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL							
OA PT SD SE SL SZ TZ UG ZW							
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES							
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS							
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL							
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW							
AU 2000013961	A	20000613	(200043)			C07H021-00	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000031102	A1	WO 1999-GB3912	19991125 <--
AU 2000013961	A	AU 2000-13961	19991125 <--

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000013961	A Based on	WO 2000031102

PRIORITY APPLN. INFO: GB 1998-25687
19981125

INT. PATENT CLASSIF.:

MAIN: C07H021-00

BASIC ABSTRACT:

WO 200031102 A UPAB: 20000718

NOVELTY - A process for **conjugating** an oligonucleotide (I) with a peptide (II) comprises attaching a **diene** or a **dienophile** to the oligonucleotide or peptide and reacting the components formed together.

DETAILED DESCRIPTION - A process for **conjugating** a oligonucleotide of formula (I) with a peptide of formula (II) comprises attaching a **diene** or a **dienophile** to the oligonucleotide or peptide and reacting the components formed together to give a cyclohexene derivative of formula (III).

R1 and R2 = electron donating groups or electron withdrawing groups, provided that R1 does not equal R2.

INDEPENDENT CLAIMS are also included for the following:

- (1) a N-furfuryl deoxycytidine phosphoramidite monomer for use in the conjugating a peptide with an oligonucleotide;
- (2) an oligonucleotide linked to a **diene** or

dienophile group for use in **conjugating** a peptide with an oligonucleotide; and

(3) a peptide linked to a **diene** or **dienophile** group for use in **conjugating** a peptide with an oligonucleotide.

USE - The process uses the **Diels Alder** reaction to form a peptide oligonucleotide hybrid molecule. The process could also be used for the preparation of oligoribonucleotide peptide conjugates. It can also be used for the preparation of **conjugates** between oligonucleotides and any other suitable molecule bearing a **diene** or **dienophile**.

The peptide linked oligonucleotides produced can be used as an aid in targeting oligonucleotides to specific cell types. Viral coat proteins have good cell membrane penetrating properties and can be chemically linked to oligonucleotides which can then be introduced into cells more easily. The conjugates can be used in the field of labelling where attaching specific peptides to oligonucleotides allows the oligonucleotides to be recognized by an antibody specific to the peptide used, increasing the number of labelling species which are available. The conjugates can also be used in the field of linking gene function to sequence.

ADVANTAGE - The **Diels Alder** reaction used to link the diene and **dienophile** groups can take place under mild reaction conditions.

Dwg.0/5

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; GI; DCN
MANUAL CODES: CPI: B04-C01; B04-E07; B04-N04; D05-H09; **D05-H10**
; D05-H12D6

TECH UPTX: 20000718

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The **dienophile** is attached to the peptide using an N-maleimide where maleimido amino acid is incorporated during a step in the synthesis of the peptide, preferably the last step in synthesis.

The diene is attached to the oligonucleotide by reacting an active ester of the diene with an amino functionalized oligonucleotide. The diene is attached during synthesis of the oligonucleotide through incorporation using a phosphoramidite monomer. The diene may be attached to the 3' or 5' terminus of the oligonucleotide.

The **dienophile** associated peptide is linked to the diene associated oligonucleotide in a polar aqueous environment under conditions suitable for a **Diels Alder** reaction.

ABEX UPTX: 20000718

EXAMPLE - An amino functionalized oligonucleotide (15.3 units) was dissolved in 700 microliter deionized water and 100 microliter buffer added (1M sodium carbonate pH 9). A solution of a furan active ester (200 microliter of 10 mg/ml in dimethylformamide (DMF)) was added and the reaction allowed to proceed overnight at room temperature to produce an oligonucleotide furfuryl construct purified using a Sephadex column. The oligonucleotide (11.5 units) was dissolved in 800 microliter deionized water, a solution of 6-maleimidocaproic acid (200 microliter, 10 mg/ml in ethanol) added and the reaction incubated overnight after which low molecular weight compounds were removed by gel filtration.

N-furfuryl-deoxycytidine phosphoramidite was prepared and found to have a coupling value of 99%. Oligonucleotides with N-furfuryl-deoxycytidine phosphoramidite attached at the 5' end were conjugated to maleimide-activated alkaline phosphatase by reacting the functionalized sequence (1.84 nmol) with enzyme (1.12 nmol) in a total volume of 75 microliter 1x SSC (sodium chloride, sodium citrate and sodium dodecyl sulfate). After 2 hours the conjugate was isolated in 79% yield by separation from unreacted oligonucleotide by gel filtration

chromatography. The ratio of oligonucleotide to enzyme was estimated from the UV absorption characteristics of the conjugate at 0.9:1.

DEFINITIONS - Preferred Definitions: The electron donating groups are hydrogen, alkyl, cycloalkyl, aryl, oxygen, sulfur, nitrogen or heterocyclic structures including these where the electron donating groups may be joined to form part of a cyclic structure or they may be acyclic. The electron withdrawing groups are nitro, nitrile, sulfonic acid, carboxylic acid, aldehyde, carbonyl, sulfate, sulfone, quaternary ammonium or heterocyclic structures containing these where the electron withdrawing groups may be joined to form part of a cyclic structure or they may be acyclic.

L242 ANSWER 106 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2000-246723 [21] WPIX
 DOC. NO. CPI: C2000-074754
 TITLE: Purification of oligomers using dual-end selection, used to prepare substantially pure oligonucleotides, oligopeptides and oligosaccharides.
 DERWENT CLASS: B04 D16
 INVENTOR(S): HORN, T; URDEA, M S
 PATENT ASSIGNEE(S): (FARB) BAYER CORP
 COUNTRY COUNT: 89
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2000012524	A1	20000309	(200021)*	EN	66	C07H021-00	<--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL							
OA PT SD SE SL SZ UG ZW							
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES							
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS							
LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ							
TM TR TT UA UG US UZ VN YU ZA ZW							
AU 9960230	A	20000321	(200031)				<--
EP 1105404	A1	20010613	(200134)	EN		C07H021-00	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT							
RO SE SI							
JP 2002525288	W	20020813	(200267)		83	C07H021-04	
US 6472522	B1	20021029	(200274)			C07H021-00	
EP 1105404	B1	20031029	(200379)	EN		C07H021-00	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE							
DE 69912443	E	20031204	(200404)			C07H021-00	
ES 2211222	T3	20040701	(200444)			C07H021-00	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012524	A1	WO 1999-US19826	19990827 <--
AU 9960230	A	AU 1999-60230	19990827 <--
EP 1105404	A1	EP 1999-968238	19990827 <--
		WO 1999-US19826	19990827 <--
JP 2002525288	W	WO 1999-US19826	19990827 <--
		JP 2000-571057	19990827 <--
US 6472522	B1 Provisional	US 1998-98357P	19980827 <--
		US 1999-384852	19990827 <--
EP 1105404	B1	EP 1999-968238	19990827 <--
		WO 1999-US19826	19990827 <--
DE 69912443	E	DE 1999-612443	19990827 <--

		EP 1999-968238	19990827	<--
		WO 1999-US19826	19990827	<--
ES 2211222	T3	EP 1999-968238	19990827	<--

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9960230	A Based on	WO 2000012524
EP 1105404	A1 Based on	WO 2000012524
JP 2002525288	W Based on	WO 2000012524
EP 1105404	B1 Based on	WO 2000012524
DE 69912443	E Based on	EP 1105404
	Based on	WO 2000012524
ES 2211222	T3 Based on	EP 1105404

PRIORITY APPLN. INFO: **US 1998-98357P****19980827; US****1999-384852****19990827**

INT. PATENT CLASSIF.:

MAIN: C07H021-00; C07H021-04
 SECONDARY: C07H003-04; C07H003-06; C07K001-06; C07K001-20;
 C07K005-04; C07K007-00

BASIC ABSTRACT:

WO 200012524 A UPAB: 20000502

NOVELTY - Preparation of a purified oligomer segment, comprises providing a support-bound oligomer having three selectably cleavable linkages where the oligomer segment of interest is flanked by the second and third linkages and a capture moiety is present at the free terminus of the oligomer, a second capture moiety is present between the first and third linkages.

DETAILED DESCRIPTION - The method comprises, cleaving the first linkage to release the oligomer, incubating the released oligomer with a capture medium that selectively retains the oligomer by binding to the capture moiety to form a complex, cleaving the second linkage, incubating the oligomeric product of the cleavage with a second capture medium that selectively binds to the second capture moiety, to form a second capture medium-oligomer complex, and cleaving the third linkage to provide the oligomer segment.

An INDEPENDENT CLAIM is made for a support-bound oligomer of structure (I): S-(X1)n1-SC1-CP2-(X2)n2-SC3-T1-X-T2-SC2-CP1 (I).

T1, T2 = first and second oligomer termini;

S = a solid support;

X = an oligomer segment of interest;

X1, X2 = monomers or oligomeric segments;

n1, n2 = 0 or 1;

SC1 = a first selectably cleavable linkage;

SC2 = a second selectably cleavable linkage;

SC3 = a third selectably cleavable linkage;

CP1 = a first capture moiety; and

CP2 = a second capture moiety.

USE - The method is used for preparing oligomers which are 2-50, 2-20 or particularly 3-10 monomers in length, which are substantially free of error sequences by adding monomers to a growing chain bound to a support, to produce substantially pure oligonucleotides, oligopeptides or oligosaccharides. The oligonucleotides are useful for nucleic acid hybridization assays such as polymerase chain reaction (PCR).

ADVANTAGE - The process provides a simplified, efficient and versatile method for purifying oligomers, without having to use labor intensive purification processes such as gel purification.

Dwg.0/1

FILE SEGMENT: CPI
 FIELD AVAILABILITY: AB; GI; DCN
 MANUAL CODES: CPI: B04-B03C; B11-C09; D05-C05; D05-C08; D05-C12;
D05-H10; D05-H17

TECH UPTX: 20000502

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compounds: The oligomer may be an oligonucleotide, an oligopeptide or an oligosaccharide. The first and second capture media are selected from a reverse phase chromatography medium, a hydrophobic interaction chromatography medium and combinations of them. The first and second capture moieties comprise a 5'-thiol or a 5'-dialdehyde. The third selectably cleavable linkage is selected from a group (a)-(c):

N4-(DMT-O-R5)-2',3'-O-benzoyl-riboNu1 (a)

R5 = lower alkylene, arylene, aralkylene or alkarylene;

RiboNu1 = 5'-riboadenine, 5'-ribothymidine, 5'-riboguanine, 5'-ribocytidine or 5'-ribouridine; and

DMT = dimethoxytrityl;

-O-R6-O-Si(R7)(R8)-O-Si(R9)(R10)-5'-O (b)

R6-R10 = lower alkyl, aryl, aralkyl or alkaryl;

(C) is a group (c):

CP2 = a 5'-terminal capture moiety;

R = 2-nitrobenzyl, 4-penten-1-yl, -CH₂CH₂Sphenyl, CH₂CH₂Si(CH₃)₃,

-P(O)O-2, CH₂CH₂-C₆H₄-NO₂ or a group (d):

R' = H, aryl or aralkyl;

Ri = NH₂, NO₂, halo, OH, lower alkyl or lower alkoxy;

Rj = Rj = amino, nitro, halo, OH, lower alkyl, lower alkoxy;

i = 0-3; and

j = 0-4.

The second selectably cleavable group is selected from

N4-(phosphoryl-6-oxyhexyl)cytidine, 2',3'-isorpopylidine-N4-(phosphoryl-6-

oxyhexyl)cytidine, -P-O-alkylene-Salkylene-O-p-, Nu2-R11, -O-p-NH-R12,

alkyl phosphate linkers, -Nu2-3'-O-Si(R13)(R14)-O-Si(R15)(R16)-O-,

-Nu2-O-Si(R18)(R19)-2-O-, Nu2-O-Si(R21)(R22)-R23-Si-(R24)(R25)-O-,

2'-O-PG-ribonucleotide, Nu2-O-R27-S-, Nu2-O-R29-O-R30(NO₂) or

Nu2-O-p-O-R31-NH(alkyloxycarbonyl)-O-; where

Nu2 = the terminal 3' nucleotide of the oligomer;

R11 = a nucleoside;

R12-R16, R18, R19, R21-R25, R27 = lower alkyl, aryl, aralkyl or alkaryl;

R29, R31 = lower alkyl; and

R30 = aryl, aralkyl or alkaryl.

The first capture moiety is selected from a 3'-thiol moiety, a

3'-bromoacetyl moiety, a 3'-malimido moiety, a 3'-dialdehyde moiety, a

hydrazide moiety, a (6-histminylpurine) moiety, a diol moiety, a

dinitrophenyl moiety or a **Diels-Alder** moiety.

ABEX UPTX: 20000502

EXAMPLE - Preparation and purification of an oligomer with a free 3'-OH is as follows; The oligomer was synthesized on a special support,

DMT-T-SSi2-p-(CH₂)₃-SS-(CH₂)₃-O-Succ-NH-(CH₂)₃-CPG. At the conclusion of

the synthesis, the final 5'-O-dimethoxytrityl (DMT) was left on. Prior to

removal of the oligomer from the support, the solid-supported oligomer was treated with 15% t-butylamine in acetonitrile to remove all

beta-cyanoethyl phosphate protecting groups. The oligomer was then cleaved

from the support and fully deprotected with NH₄OH at 20degreesC and

55degreesC for 18 hours. The fully deprotected oligomer was then treated

with a large excess of DTT(dithiothreitol) in Maxim-Gilbert buffer for 1

hour. The DTT and buffer were removed using a reverse-phase cartridge,

Baker Phenyl SPE column containing 500mg of phenyl-derivatized silica.

Elution with 30% MeOH in 50mM triethylammonium acetate resulted in

incomplete elution of non-DMT oligomers; 75% MECH/TEAA eluted all non-DMT

and DMT oligomer species. The 75% eluent was directly applied to the capture support CPG-Sspy. The solution (10ml) was allowed to percolate through the capture support; the capture was followed by ultraviolet (UV) which indicated that all UV material was retained on the capture support with concomitant release of Py-S- absorbing at 350nm. The capture support was washed with 75% MeOH/TEAA (10ml) and Maxim-Gilbert buffer (10ml) which was allowed to percolated through the capture support over 30 minutes. The buffer wash was applied to a fresh BP and oligomeric material re-isolated. The buffer wash completely removed all oligomers that lacked the 3'-sulfhydryl capture functionality. Capture oligomeric material was released with DTT/Maxim Gilbert buffer (1ml) which was allowed to percolate through the capture support (30minutes). The solution containing the released oligomeric material was diluted with water (4ml) and 1ml of concentrated triethylammonium (TEA)(HF)₃ was added and the reaction allowed to go for 2 hours. The mixture was directly applied to an Oligonucleotide Purification Cartridge and washed with triethylammoniumacetate (TEAA). Elution with 30% MeOH/TEAA completely removed non-DMT oligomers and 75% MeOH/TEAA eluted the product oligomer in pure form. Evaporation and detritylation yielded the purified oligomer. Capture efficiency was determined to be about 65%.

L242 ANSWER 107 OF 145 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1990-149616 [20] WPIX
 DOC. NO. CPI: C1990-065508
 TITLE: Support for biologically active molecules - comprising inorganic matrix upon which are deposited polymer particles.
 DERWENT CLASS: B04 D16 J04
 INVENTOR(S): VINOT, B F; VINOT, B
 PATENT ASSIGNEE(S): (PROL-N) SOC PROLABO; (PROL-N) PROLABO; (RHON) RHONE-POULENC CHIMI; (RHON) RHONE POULENC CHIM
 COUNTRY COUNT: 13
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 368702	A	19900516	(199020)*				<--
R: AT BE CH DE ES FR GB IT LI LU NL SE							
FR 2638234	A	19900427	(199024)				<--
EP 368702	B1	19950426	(199521)	FR	13	C12N011-08	<--
R: AT BE CH DE ES FR GB IT LI LU NL SE							
DE 68922371	E	19950601	(199527)			C12N011-08	<--
ES 2073454	T3	19950816	(199539)			C12N011-08	<--
US 5459079	A	19951017	(199547)		6	G01N033-543	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 368702	A	EP 1989-402827	19891013 <--
FR 2638234	A	FR 1988-13798	19881021 <--
EP 368702	B1	EP 1989-402827	19891013 <--
DE 68922371	E	DE 1989-622371	19891013 <--
		EP 1989-402827	19891013 <--
ES 2073454	T3	EP 1989-402827	19891013 <--
US 5459079	A	US 1989-425060	19891020 <--
	Cont of	US 1994-206215	19940307 <--

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 68922371	E Based on	EP 368702
ES 2073454	T3 Based on	EP 368702

PRIORITY APPLN. INFO: **FR 1988-13798**
19881021

REFERENCE PATENTS: FR 2322155; FR 2476125; US 4071409; US 4218363; US 4268423; US 4337172

INT. PATENT CLASSIF.: A61K047-46; C07K017-00; C12N011-08; G01N033-54

MAIN: C12N011-08; G01N033-543

SECONDARY: A61K047-46; C07K017-00; G01N033-54; G01N033-545; G01N033-546

BASIC ABSTRACT:

EP 368702 A UPAB: 19950207

Supports for biologically-active molecules comprises a non water-soluble, porous, inorganic matrix (I), on the surface of (I), water-insol. polymer particles (II), which can biologically-active molecules. Pref. (I) may be e.g. silica, alumina, or porous glass, having a volume of 0.5-1.8 ml/g, a pore dia. of 0.005-10 microns and a specific surface of 2-1000 m²/g.

USE/ADVANTAGE - Various biological uses e.g. affinity chromatography, diagnostic tests, and cell culture. Columns packed with these supports remain permeable to liqs. @ (9pp Dwg.No.0/1)

0/1

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: B04-B04A; B04-B04C2; B04-C03B; B04-C03D; B04-D02; B05-A01B; B05-B02C; B11-C08D2; B12-K04A; D05-H08; D05-H09; **D05-H10**; J01-D01A; J04-B01C

ABEQ EP 368702 B UPAB: 19950602

Support for biologically active molecules, characterized in that it consists: - of a porous, water-insoluble inorganic matrix, and - on the surface of the said matrix, of water-insoluble polymer particles capable of fixing biologically active molecules.

Dwg.0/1

ABEQ US 5459079 A UPAB: 19951128

A support for biologically active molecules comprises a particulate, non-fibrous, porous, water-insol. inorganic matrix with particle dia. 4 micron-5mm and pore vol. 0.5-1.8 ml/g, pore dia. 0.005-10(0.1-1) microns and specific surface area 2-1000m²/g; and on the matrix surface water-insol. polymer particles smaller than the pore dia. capable of fixing biologically active molecules.

The matrix is silica, alumina or porous glass of wt. 1-1000(50-500) times total wt. of polymer particles. The polymer is derived from a vinylaromatic monomer, an alkyl ester of an alpha,beta-unsatd. acid, or of a unsatd. carboxylic acid, vinyl chloride, vinylidene chloride, a **conjugated diene**, an unsatd., monomer contg. a nitrile functional gp. or a siloxane. The water-insol. polymer may be derived from a water-immiscible monomer and contains below 10% of comonomer(s) contg. ionizable or reactive gps. Comonomers include vinylbenzene sulphonate, sulphoalkyl- or aminoalkyl-ester of an unsatd. acid, unsatd. carboxylic acid, hydroxyalkyl acrylate or methacrylate, acrylamide, vinylbenzene chloride, and glycidyl methacrylate. The matrix surface has functional gps. capable of reacting covalently with the polymer particles, which may be sensitised by 0.01-15 wt.% particle wt. of a biologically active substance, e.g. protein, antigen or medication.

USE - A permeable high specific surface area support for affinity chromatography, diagnostic tests and cell culture.

Dwg.0/1

=> d ibib ed ab hitind 108-145

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' -
CONTINUE? (Y)/N:y

L242 ANSWER 108 OF 145 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 90268567 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2347007
TITLE: Synthetic anthracyclines: regiospecific total synthesis of
a D-ring indole analogue of daunomycin.
AUTHOR: Kita Y; Kirihara M; Sasho M; Fujii Y; Sekihachi J; Okunaka
R; Tamura Y; Shimooka K
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Osaka University,
Japan.
SOURCE: Chemical & pharmaceutical bulletin, (1990 Mar)
Vol. 38, No. 3, pp. 585-9.
Journal code: 0377775. ISSN: 0009-2363.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199007
ENTRY DATE: Entered STN: 10 Aug 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 9 Jul 1990

ED Entered STN: 10 Aug 1990

Last Updated on STN: 3 Feb 1997

Entered Medline: 9 Jul 1990

AB The 4-methoxy-5-methylpyrano[4,3-b]indole-1,3(4H,5H)-dione (9), prepared
from methyl 3-methoxycarbonyl-1-methylindol-2-yl acetate (6), underwent a
strong base-induced **cycloaddition** reaction with
2-chloro-6,6-ethylenedioxy-5,6,7,8-tetrahydro-1,4-naphthoquinone (11) to
give the tetrahydronaphtho[2,3-b]carbazole-7,12-dione (10),
regioselectively. The **cycloadduct** (10) was successfully
converted to a D-ring indole analogue of daunomycin (1a).

CT Animals

Chemistry

*Daunorubicin: AA, analogs & derivatives

Daunorubicin: CS, chemical synthesis

Mice

Tumor Cells, Cultured: DE, drug effects

RN 20830-81-3 (Daunorubicin)

L242 ANSWER 109 OF 145 MEDLINE on STN
ACCESSION NUMBER: 2001149975 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11097064
TITLE: Double-stranded **nucleic acids** in
liquid-crystalline dispersions as building blocks for
cross-linked supramolecular structures.
AUTHOR: Yevdokimov Y M; Salyanov V I; Mchedlishvili B V; Bykov V
A; Belyaev A V; Saunin S A; Spener F; Palumbo M
CORPORATE SOURCE: VA Engelhardt Institute of Molecular Biology of the Russian
Academy of Sciences, Moscow.
SOURCE: Nucleosides, nucleotides & nucleic acids, (2000
Aug) Vol. 19, No. 8, pp. 1355-64.
Journal code: 100892832. ISSN: 1525-7770.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 4 Apr 2001
Last Updated on STN: 4 Apr 2001
Entered Medline: 15 Mar 2001

ED Entered STN: 4 Apr 2001
Last Updated on STN: 4 Apr 2001
Entered Medline: 15 Mar 2001

AB Double-stranded DNA fixed in a cholesteric liquid-crystalline dispersion was used for generating an ordered supramolecular structure in the presence of anthracycline and copper (II) ions. The structure is stable in a water-salt solution and does not require poly(ethyleneglycol). The ordered network can be **immobilized** on the surface of a polymeric film, and may collapse in the presence of biologically and pharmacologically relevant compounds. Accordingly, the DNA-based liquid-crystalline network represents the basis to obtain novel highly sensitive biosensing units.

CT Animals
Biopolymers: CH, chemistry
Cations: CH, chemistry
Chelating Agents: CH, chemistry
Chemistry, Physical
Chickens
Circular Dichroism
Copper: CH, chemistry
Cross-Linking Reagents: CH, chemistry
Crystallization
*DNA: CH, chemistry
Daunorubicin: CH, chemistry
*Macromolecular Substances
Microscopy, Atomic Force
Models, Molecular
Polyethylene Glycols: CH, chemistry
Research Support, Non-U.S. Gov't
Sodium Chloride: CH, chemistry
Water

RN **20830-81-3 (Daunorubicin); 7440-50-8 (Copper); 7647-14-5 (Sodium Chloride); 7732-18-5 (Water); 9007-49-2 (DNA)**

CN 0 (Biopolymers); 0 (Cations); 0 (Chelating Agents); 0 (Cross-**Linking Reagents**); 0 (Macromolecular Substances); 0 (Polyethylene Glycols)

L242 ANSWER 110 OF 145 MEDLINE on STN
ACCESSION NUMBER: 2000438215 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10861592
TITLE: Sustained and controlled release of daunomycin from cross-linked poly(aldehyde guluronate) **hydrogels**

AUTHOR: Bouhadir K H; Kruger G M; Lee K Y; Mooney D J
CORPORATE SOURCE: Department of Chemical Engineering, University of Michigan, Ann Arbor 48109-2136, USA.
SOURCE: Journal of pharmaceutical sciences, (2000 Jul)
Vol. 89, No. 7, pp. 910-9.
Journal code: 2985195R. ISSN: 0022-3549.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200009

ENTRY DATE: Entered STN: 28 Sep 2000
Last Updated on STN: 28 Sep 2000
Entered Medline: 20 Sep 2000

ED Entered STN: 28 Sep 2000
Last Updated on STN: 28 Sep 2000
Entered Medline: 20 Sep 2000

AB We have incorporated daunomycin, an antineoplastic agent, into a biodegradable **hydrogel** through a labile covalent bond. In brief, sodium alginate was chemically broken down to low molecular weight and followed by oxidation to prepare poly(aldehyde guluronate). Adipic dihydrazide was used to incorporate the drug into the polymer backbone and cross-link the polymer to form **hydrogels**. Daunomycin can be released from the **hydrogel** after the hydrolysis of the covalent **linkage** between the drug and the polymer. A wide range of release profiles of daunomycin (e.g., from 2 days to 6 weeks) has been achieved using these materials, and the biological activity of the released daunomycin was maintained.

CT *Aldehydes: CH, chemistry
*Antibiotics, Antineoplastic: AD, administration & dosage
Antibiotics, Antineoplastic: CH, chemistry
Antibiotics, Antineoplastic: PD, pharmacology
Biological Availability
Carbohydrate Sequence
Cell Survival: DE, drug effects
Cross-Linking Reagents
*Daunorubicin: AD, administration & dosage
Daunorubicin: CH, chemistry
Daunorubicin: PD, pharmacology
Delayed-Action Preparations
Humans
Hydrogel
Hydroxamic Acids: CH, chemistry
KB Cells
Molecular Sequence Data
*Polysaccharides: CH, chemistry
Research Support, Non-U.S. Gov't
Solubility
Spectrophotometry, Ultraviolet

RN 20830-81-3 (Daunorubicin); 25852-47-5 (Hydrogel)

CN 0 (Aldehydes); 0 (Antibiotics, Antineoplastic); 0 (Cross-Linking Reagents); 0 (Delayed-Action Preparations); 0 (Hydroxamic Acids); 0 (Polysaccharides); 0 (adipoyl dihydroxamic acid); 0 (poly(aldehyde guluronate))

L242 ANSWER 111 OF 145 MEDLINE on STN
ACCESSION NUMBER: 1999187256 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10086980
TITLE: Stable incorporation of a lipophilic daunorubicin prodrug into apolipoprotein E-exposing liposomes induces uptake of prodrug via low-density lipoprotein receptor in vivo.
AUTHOR: Versluis A J; Rump E T; Rensen P C; van Berkel T J; Bijsterbosch M K
CORPORATE SOURCE: Division of Biopharmaceutics, Leiden/Amsterdam Center for Drug Research, University of Leiden, Leiden, The Netherlands.
SOURCE: The Journal of pharmacology and experimental therapeutics, (1999 Apr) Vol. 289, No. 1, pp. 1-7.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 4 May 1999
Last Updated on STN: 4 May 1999
Entered Medline: 21 Apr 1999

ED Entered STN: 4 May 1999

Last Updated on STN: 4 May 1999

Entered Medline: 21 Apr 1999

AB Many tumors express elevated levels of low-density lipoprotein (LDL) receptors. Therefore, native LDL and synthetic LDL-like particles have been proposed as carriers for antineoplastic drugs. We demonstrated earlier that small apolipoprotein E (apoE)-exposing liposomes were specifically recognized by the LDL receptor. In this study, we incorporated a lipophilic derivative of daunorubicin (LAD) into the apoE liposomes. Up to 11 molecules of LAD could be incorporated per particle without significantly changing the size, lipid composition, and ability to bind apoE of the liposomes. The biological fate of the prodrug was largely determined by its carrier (70% of the initially incorporated LAD was still associated to the liposomes after 4 h of circulation in mice). Compared with free daunorubicin, the circulation half-life of the liposome-associated prodrug was substantially prolonged and undesired tissue disposition was reduced. The role of the LDL receptor in the metabolism of LAD-loaded apoE liposomes was demonstrated in rats with up-regulated hepatic LDL receptors. In these rats, the liver uptake of the prodrug and carrier was increased 5-fold. The addition of apoE was essential for LDL receptor-mediated uptake of the drug-carrier **complex**. In LDL receptor-deficient mice, the circulation time of both the prodrug and the carrier increased approximately 2-fold compared with wild-type mice. We conclude that LAD-loaded apoE liposomes constitute a stable drug-carrier **complex** that is well suited for LDL receptor-mediated selective drug delivery to tumors.

CT Check Tags: Male

Animals

Antibiotics, Antineoplastic: AD, administration & dosage

Antibiotics, Antineoplastic: BL, blood

Antibiotics, Antineoplastic: CH, chemistry

*Antibiotics, Antineoplastic: PK, pharmacokinetics

Apolipoproteins E

Daunorubicin: AD, administration & dosage

Daunorubicin: BL, blood

Daunorubicin: CH, chemistry

*Daunorubicin: PK, pharmacokinetics

Drug Carriers

Ethinyl Estradiol: PD, pharmacology

Humans

Iodine Radioisotopes

Liposomes

Liver: ME, metabolism

Mice

Mice, Inbred C57BL

Prodrugs: AD, administration & dosage

Prodrugs: CH, chemistry

*Prodrugs: PK, pharmacokinetics

Rats

Rats, Wistar

Receptors, LDL: DF, deficiency

Receptors, LDL: GE, genetics

*Receptors, LDL: ME, metabolism

Recombinant Proteins: ME, metabolism

RN 20830-81-3 (Daunorubicin); 57-63-6 (Ethinyl Estradiol)
 CN 0 (Antibiotics, Antineoplastic); 0 (Apolipoproteins E); 0 (Drug Carriers);
 0 (Iodine Radioisotopes); 0 (Liposomes); 0 (Prodrugs); 0 (Receptors, LDL);
 0 (Recombinant Proteins)

L242 ANSWER 112 OF 145 MEDLINE on STN
 ACCESSION NUMBER: 1999128598 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9929737
 TITLE: [Transportation of cytotoxic liposomes to malignant cells
 using a **carbohydrate** determinant].
 Transportirovka tsitotoksicheskikh liposom k
 zlokachestvennym kletkam s pomoshch'iu uglevodnykh
 determinant.
 AUTHOR: Vodovozova E L; Khaidukov S V; Gaenko G P; Bondarchuk T N;
 Mikhalev I I; Grechishnikova I V; Molotkovskii Iu G
 CORPORATE SOURCE: Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry,
 Russian Academy of Sciences, Moscow, Russia.
 SOURCE: Bioorganicheskaya khimiya, (1998 Oct) Vol. 24,
 No. 10, pp. 760-7.
 Journal code: 7804941. ISSN: 0132-3423.
 PUB. COUNTRY: RUSSIA: Russian Federation
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: Russian
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199902
 ENTRY DATE: Entered STN: 11 Mar 1999
 Last Updated on STN: 11 Mar 1999
 Entered Medline: 24 Feb 1999

ED Entered STN: 11 Mar 1999
 Last Updated on STN: 11 Mar 1999
 Entered Medline: 24 Feb 1999
 AB A method of the synthesis of lipophilic glycoconjugates (vectors) on the
 basis of polyethyleneglycol-containing detergent was proposed. It has
 been shown by flow cytometry that fluorescent labeled liposomes
 equipped with beta-galactosyl **conjugate** are bound human leukemia
 HL-60 cells more effectively than liposomes embedded with the
 beta-glucosyl **conjugate** or vector-free liposomes. A new lipid
 derivative of antitumor drug rubomycin (daunorubicin),
 N-(rac-1,2-dioleoylglycero-3-oxalyl)rubomycin (RubDG) has been
 synthesized. Liposomes loaded with RubDG and equipped with galactosyl
 vector showed higher cytotoxic activity in vitro against HL-60 cells than
 analogous unvectorized liposomes or liposomes bearing glucosyl
conjugate.

CT Antibiotics, Antineoplastic: CH, chemistry
 *Antibiotics, Antineoplastic: PK, pharmacokinetics
 *Daunorubicin: PK, pharmacokinetics
 Drug Carriers
 English Abstract
 Flow Cytometry
 Glycoconjugates: CS, chemical synthesis
 *Glycoconjugates: CH, chemistry
 HL-60 Cells
 Humans
 Liposomes

RN 20830-81-3 (Daunorubicin)
 CN 0 (Antibiotics, Antineoplastic); 0 (Drug Carriers); 0 (Glycoconjugates); 0
 (Liposomes)

L242 ANSWER 113 OF 145 MEDLINE on STN
 ACCESSION NUMBER: 1998249546 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9587947
 TITLE: Synthesis of a lipophilic daunorubicin derivative and its incorporation into lipidic carriers developed for LDL receptor-mediated tumor therapy.
 AUTHOR: Versluis A J; Rump E T; Rensen P C; Van Berkel T J; Bijsterbosch M K
 CORPORATE SOURCE: Division of Biopharmaceutics, Leiden/Amsterdam Center for Drug Research, University of Leiden, The Netherlands.
 SOURCE: Pharmaceutical research, (1998 Apr) Vol. 15, No. 4, pp. 531-7.
 Journal code: 8406521. ISSN: 0724-8741.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199807
 ENTRY DATE: Entered STN: 31 Jul 1998
 Last Updated on STN: 31 Jul 1998
 Entered Medline: 23 Jul 1998

ED Entered STN: 31 Jul 1998
 Last Updated on STN: 31 Jul 1998
 Entered Medline: 23 Jul 1998

AB PURPOSE: Many tumors express elevated levels of LDL receptors (apoB, E receptors) on their membranes. Selective delivery of anti-neoplastic drugs to tumors by incorporation of these drugs into LDL or LDL-resembling particles should improve the efficacy of tumor therapy and minimize the severe side-effects. Since the apolipoproteins on the particles are essential for the LDL receptor recognition, drugs should preferably be incorporated into the lipid moiety. Most anti-tumor agents are too hydrophilic for incorporation into these carriers. METHODS: We synthesized LAD, a lipophilic prodrug of daunorubicin, by **coupling** the drug via a lysosomally degradable **peptide** spacer to a cholesteryl oleate analog. RESULTS: The overall yield of the synthesis was 50% with a purity of > 90%. Radioactively ([3H]) labeled LAD was obtained via a slightly modified procedure (yield 40%). The octanol/water partition coefficient of LAD is 30-fold higher than that of daunorubicin. LAD could be incorporated into triglyceride-rich lipid emulsions and small liposomes, which, if provided with apoE, have been demonstrated earlier to be cleared in vivo via the LDL receptor. The liposomes contained approximately 10 molecules of LAD per liposomal particle. Analysis of differently sized LAD-containing emulsions suggests that LAD associates with the surface of lipidic particles. In the presence of human serum, LAD did not dissociate from the emulsion particles, indicating a firm association of LAD with the carrier. CONCLUSIONS: The **coupling** of a cholesterol ester analog to daunorubicin results in a lipophilic prodrug that can be firmly anchored into lipidic carries. LAD-loaded emulsions and liposomes provided with recombinant apoE will be tested in the near future for their ability to deliver LAD to tumor tissue in vivo via the LDL receptor.

CT Antibiotics, Antineoplastic: BL, blood
 *Antibiotics, Antineoplastic: CS, chemical synthesis
 Cholesterol Esters: CH, chemistry
 *Cholic Acids: CS, chemical synthesis
 Cholic Acids: ME, metabolism
 Daunorubicin: AA, analogs & derivatives
 *Daunorubicin: CS, chemical synthesis
 Daunorubicin: ME, metabolism
 Drug Carriers: CH, chemistry
 Emulsions
 Humans

Liposomes**Oligopeptides: CH, chemistry**

*Prodrugs: CS, chemical synthesis

*Receptors, LDL: ME, metabolism

Structure-Activity Relationship

RN 20830-81-3 (Daunorubicin); 303-43-5 (cholesteryl oleate);
84676-48-2 (alanyl-leucyl-alanyl-leucine)

CN 0 (Antibiotics, Antineoplastic); 0 (Cholesterol Esters); 0 (Cholic Acids);
0 (Drug Carriers); 0 (Emulsions); 0 (Liposomes); 0 (Oligopeptides
); 0 (Prodrugs); 0 (Receptors, LDL)

L242 ANSWER 114 OF 145 MEDLINE on STN

ACCESSION NUMBER: 1998186625 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9518541

TITLE: Comparison of the interaction of doxorubicin, daunorubicin,
idarubicin and idarubicinol with large unilamellar
vesicles. Circular dichroism study.

AUTHOR: Gallois L; Fiallo M; Garnier-Suillerot A

CORPORATE SOURCE: Laboratoire de Physicochimie Biomoléculaire et Cellulaire
(URA CNRS 2056), Université Paris Nord, 74, rue Marcel
Cachin, 93017 Bobigny Cedex, France.

SOURCE: Biochimica et biophysica acta, (1998 Mar 6) Vol.
1370, No. 1, pp. 31-40.

Journal code: 0217513. ISSN: 0006-3002.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199804

ENTRY DATE: Entered STN: 7 May 1998

Last Updated on STN: 7 May 1998

Entered Medline: 29 Apr 1998

ED Entered STN: 7 May 1998

Last Updated on STN: 7 May 1998

Entered Medline: 29 Apr 1998

AB Doxorubicin, daunorubicin and other anthracycline antibiotics constitute one of the most important groups of drugs used today in cancer chemotherapy. The details of the drug interactions with membranes are of particular importance in the understanding of their kinetics of passive diffusion through the membrane which is itself basic in the context of multidrug resistance (MDR) of cancer cells. Anthracyclines are amphiphilic molecules possessing dihydroxyanthraquinone ring system which is neutral under the physiological conditions. Their lipophilicity depends on the substituents. The amino **sugar** moiety bears the positive electrostatic charge localised at the protonated amino nitrogen. The four anthracyclines used in this study doxorubicin, daunorubicin, idarubicin and idarubicinol (an idarubicin metabolite readily formed inside the cells) have the same amino **sugar** moiety, daunosamine, with pKa of 8.4. Thus, all drugs studied will exhibit very similar electrostatic interactions with membranes, while the major differences in overall drug-membrane behaviour will result from their hydrophobic features. Circular dichroism (CD) spectroscopy was used to understand more precisely the conformational aspects of the drug-membrane systems. Large unilamellar vesicles (LUV) consisting of phosphatidylcholine, phosphatidic acid (PA) and cholesterol, were used. The anthracycline-LUV interactions depend on the molar ratio of phospholipids per drug. At low molar ratios drug:PA, these interactions depend also on the anthracycline lipophilicity. Thus, both doxorubicin and daunorubicin bind to membranes as monomers and their CD signal in the visible is positive. However, doxorubicin with its very low lipophilicity binds to the LUV through

electrostatic interactions, with the dihydroxyanthraquinone moiety being in the aqueous phase, while daunorubicin, which is more lipophilic is unable to bind only through electrostatic interactions and actually the hydrophobic interactions are the only detected. The highly hydrophobic idarubicin, forms within the bilayer a rather **complex** entity involving 2-3 molecules of idarubicin associated in the right-handed conformation, one cholesterol molecule and also molecule(s) of phosphatidic acid, as this special oligomeric species is not detected in the absence of negatively-charged phospholipids. Idarubicinol differs from idarubicin with CH(13)-OH instead of C(13)=O and its interactions with LUV are distinctly different. Its CD signal in the visible becomes negative and no self associations of the molecule within the bilayer could be detected. The variation of the sign of the Cotton effect (positive to negative) may derive from the changes in the C(6a)-C(7)-O(7)-C(1') dihedral angle. It is noteworthy that C(13)-OH group, which strongly favours formation of the dimeric species in aqueous solutions when compared to idarubicin prevent association inside the LUV bilayer. At high ratios of phospholipids per drug all of them are embedded within the bilayer as monomer.

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CT ***Anthracyclines: CH, chemistry**

Circular Dichroism

Comparative Study

Daunorubicin: AA, analogs & derivatives

Daunorubicin: CH, chemistry

Dimerization

Doxorubicin: CH, chemistry

Idarubicin: CH, chemistry

***Lipid Bilayers: CH, chemistry**

***Liposomes: CH, chemistry**

Membranes, Artificial

Models, Molecular

Research Support, Non-U.S. Gov't

Solvents

RN **20830-81-3 (Daunorubicin); 23214-92-8 (Doxorubicin); 58957-92-9 (Idarubicin); 86189-66-4 (idarubicinol)**

CN **0 (Anthracyclines); 0 (Lipid Bilayers); 0 (Liposomes); 0 (Membranes, Artificial); 0 (Solvents)**

L242 ANSWER 115 OF 145 MEDLINE on STN

ACCESSION NUMBER: 96371024 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8774859

TITLE: Formation of polymeric chelate bridges between double-stranded DNA molecules fixed in spatial structure of liquid-crystalline dispersions.

AUTHOR: Yevdokimov YuM; Salyanov V I; Gedig E; Spener F

CORPORATE SOURCE: Engelhardt Institute of Molecular Biology, The Russian Academy of Sciences, Moscow, Russia.

SOURCE: FEBS letters, (1996 Sep 2) Vol. 392, No. 3, pp. 269-73.

Journal code: 0155157. ISSN: 0014-5793.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199610

ENTRY DATE: Entered STN: 25 Oct 1996

Last Updated on STN: 3 Feb 1997

Entered Medline: 17 Oct 1996

ED Entered STN: 25 Oct 1996

Last Updated on STN: 3 Feb 1997

Entered Medline: 17 Oct 1996

AB The formation of cholesteric liquid-crystalline dispersions from DNA-daunomycin **complexes** in water-salt polyethyleneglycol-containing solutions was investigated. In the case of nonclassical **complex** formation between DNA and daunomycin (DAU), reactive groups of DAU were used for the formation of polymeric chelate **complex** with divalent copper ions (-DAU-Cu-...-Cu-DAU-), located between neighboring double-stranded DNA molecules, fixed in spatial structure of liquid-crystalline dispersions. The formation of polymeric chelate **complex** does not depend upon the sense of helicoidal twist of DNA cholesterics. A many-fold increase in the CD band in the DAU absorption region is specific to this process. A reduction of the divalent copper ions as a result of a redox-process is accompanied by destroying of structure of polymeric chelate **complex** between DNA molecules and by disappearance of the abnormal CD band in daunomycin absorption region.

CT **Ascorbic Acid: CH, chemistry**

*Chelating Agents: CH, chemistry

Circular Dichroism

Copper: CH, chemistry

Crystallization

*DNA: CH, chemistry

DNA, Superhelical

*Daunorubicin: CH, chemistry

Models, Chemical

Models, Molecular

Nucleic Acid Conformation

Oxidation-Reduction

Polyethylene Glycols: CH, chemistry

Polymers

Research Support, Non-U.S. Gov't

RN 20830-81-3 (Daunorubicin); 50-81-7 (Ascorbic Acid); 7440-50-8 (Copper); 9007-49-2 (DNA)

CN 0 (Chelating Agents); 0 (DNA, Superhelical); 0 (Polyethylene Glycols); 0 (Polymers)

L242 ANSWER 116 OF 145 MEDLINE on STN

ACCESSION NUMBER: 97005023 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8852334

TITLE: Synthesis and conformational preference of novel 8-fluoroanthracyclines.

AUTHOR: Lombardi P; Animati F; Cipollone A; Giannini G; Monteagudo E; Arcamone F

CORPORATE SOURCE: Menarini Ricerche Sud, Pomezia, Italy.

SOURCE: Acta biochimica Polonica, (1995) Vol. 42, No. 4, pp. 433-44.

Journal code: 14520300R. ISSN: 0001-527X.

PUB. COUNTRY: Poland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199612

ENTRY DATE: Entered STN: 28 Jan 1997

Last Updated on STN: 28 Jan 1997

Entered Medline: 6 Dec 1996

ED Entered STN: 28 Jan 1997

Last Updated on STN: 28 Jan 1997

Entered Medline: 6 Dec 1996

AB Analogues of daunorubicin possessing a fluorine atom at position C(8) of

ring A have been synthesized with the aim of comparing their DNA-drug interaction and antitumour properties with those of the clinically useful anthracyclines doxorubicin and idarubicin. The synthesis of (8S)-8-fluoro-4-demethoxydaunorubicin, 1, is reported and molecular mechanics and NMR studies which guided towards the synthesis of the epimeric (8R)-8-fluoro-4-demethoxydaunorubicin, 2, are discussed. Both compounds were prepared by divergent routes starting from the common intermediate, 6, obtained via the **Diels-Alder** cyclisation between quinizarin diquinone, 3, and 2-(1-hydroxyethyl)-1,3-butadiene, 4. The synthesis of the (8S)-fluoroepimer proceeded via epoxidation of the C(8)-C(9) olefinic bond of 6, oxidation, oxirane cleavage by BF₃.Et₂O to give the fluorohydroxyketone, 9, followed by the introduction of the hydroxyl moiety at C(7) and glycosylation. Conversely, the synthesis of the (8R)-fluoroepimer involved the fluorobromination of the C(8)-C(9) olefinic bond of 6, formation of the C(9)-C(13) epoxide, 20 which, after regioselective hydrolysis and oxidation of the resulting fluorodiol to the epimeric fluorohydroxyketone, 21, similarly gave the desired fluoroaglycone, 25 and, hence, the corresponding glycoside, 2. The cytotoxic properties of the two 8-fluoroanthracycline analogues, 1 and 2, were markedly affected by the stereochemistry of the fluorine substituent.

CT Antineoplastic Agents: CS, chemical synthesis

*Antineoplastic Agents: CH, chemistry

Antineoplastic Agents: PD, pharmacology

*Daunorubicin: AA, analogs & derivatives

Daunorubicin: CS, chemical synthesis

Daunorubicin: CH, chemistry

Daunorubicin: PD, pharmacology

Humans

Magnetic Resonance Spectroscopy

Molecular Structure

Research Support, Non-U.S. Gov't

Stereoisomerism

Tumor Cells, Cultured

RN 20830-81-3 (Daunorubicin)

CN 0 (Antineoplastic Agents)

*Considered
06/20/06*

L242/ ANSWER 117 OF 145 MEDLINE on STN

ACCESSION NUMBER: 96096796 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8521976

TITLE: Circumvention of multidrug resistance in neoplastic cells through scavenger receptor mediated drug delivery.

AUTHOR: Mukhopadhyay A; Mukhopadhyay B; Basu S K

CORPORATE SOURCE: National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi, India.

SOURCE: FEBS letters, (1995 Nov 27) Vol. 376, No. 1-2, pp. 95-8.

Journal code: 0155157. ISSN: 0014-5793.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199601

ENTRY DATE: Entered STN: 19 Feb 1996

Last Updated on STN: 3 Feb 1997

Entered Medline: 23 Jan 1996

ED Entered STN: 19 Feb 1996

Last Updated on STN: 3 Feb 1997

Entered Medline: 23 Jan 1996

AB A conjugate of the antineoplastic drug daunomycin (DNM) with

maleylated bovine serum **albumin** (MBSA-DNM) was taken up with high efficiency by a multidrug resistant variant, JD100, of the murine-macrophage tumour cell line, J774A.1, through the scavenger receptors resulting in cessation of DNA synthesis. In contrast, free DNM at similar concentrations did not affect the incorporation of [3H]thymidine by these cells. These results suggest that receptor-mediated intracellular delivery of antineoplastic drugs could be a viable and new approach for overcoming the problem of multidrug resistance in chemotherapy of neoplastic diseases.

CT Animals

*Antibiotics, Antineoplastic: AD, administration & dosage

Antibiotics, Antineoplastic: ME, metabolism

Antibiotics, Antineoplastic: PD, pharmacology

Cell Survival: DE, drug effects

***Daunorubicin: AD, administration & dosage**

Daunorubicin: ME, metabolism

Daunorubicin: PD, pharmacology

***Drug Delivery Systems**

*Drug Resistance, Multiple

Endocytosis

Macrophages: ME, metabolism

Maleates: PD, pharmacology

Mice

Poly G: PD, pharmacology

*Receptors, Drug: ME, metabolism

Research Support, Non-U.S. Gov't

Serum Albumin, Bovine: ME, metabolism

Tumor Cells, Cultured

Verapamil: PD, pharmacology

RN 20830-81-3 (**Daunorubicin**); 25191-14-4 (Poly G); 52-53-9

(Verapamil)

CN 0 (Antibiotics, Antineoplastic); 0 (Maleates); 0 (Receptors, Drug); 0 (Serum **Albumin**, Bovine)

L242 ANSWER 118 OF 145 MEDLINE on STN

ACCESSION NUMBER: 91330128 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1868440

TITLE: Anthracycline immunoconjugates prepared by a site-specific linkage via an amino-**dextran** intermediate carrier.

AUTHOR: Shih L B; Goldenberg D M; Xuan H; Lu H; Sharkey R M; Hall T C

CORPORATE SOURCE: Garden State Cancer Center, Newark, New Jersey.

CONTRACT NUMBER: CA 39841 (NCI)

SOURCE: Cancer research, (1991 Aug 15) Vol. 51, No. 16, pp. 4192-8.

Journal code: 2984705R. ISSN: 0008-5472.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199109

ENTRY DATE: Entered STN: 6 Oct 1991

Last Updated on STN: 6 Oct 1991

Entered Medline: 13 Sep 1991

ED Entered STN: 6 Oct 1991

Last Updated on STN: 6 Oct 1991

Entered Medline: 13 Sep 1991

AB Anthracycline, either daunomycin or doxorubicin, was site specifically attached to the **carbohydrate** moiety of a monoclonal

anticarcinoembryonic antigen antibody by using amino-**dextran** as the intermediate carrier. The reaction resulted in an immunoconjugate that contains approximately 20 to 25 molecules of drug per molecule of immunoglobulin G. Flow-cytometric studies revealed the retention of the antibody-binding activity. The immunoconjugate was cytotoxic to the target cells, as examined by the 75selenomethionine incorporation studies, and remained efficient for targeting a human colonic tumor (GW-39) in the nude mouse model. The **conjugate** possessed a greater antitumor activity against the subcutaneous tumor than either the free drug or an irrelevant antibody **conjugate**, and it was well tolerated by the animals at a much higher dose level than was the unconjugated drug.

CT Animals
 Antibodies, Monoclonal: PK, pharmacokinetics
 Antibodies, Monoclonal: PD, pharmacology
 Antibodies, Monoclonal: TU, therapeutic use
Carcinoembryonic Antigen: IM, immunology
 Cell Line
 Cell Survival: DE, drug effects
 *Colonic Neoplasms: DT, drug therapy
Daunorubicin: PD, pharmacology
***Daunorubicin: TU, therapeutic use**
Doxorubicin: PK, pharmacokinetics
Doxorubicin: PD, pharmacology
***Doxorubicin: TU, therapeutic use**
Drug Carriers
 Drug Stability
 Humans
 Immunotoxins: CS, chemical synthesis
 Immunotoxins: PK, pharmacokinetics
 Immunotoxins: PD, pharmacology
 *Immunotoxins: TU, therapeutic use
 Indicators and Reagents
 Mice
 Mice, Nude
 Neoplasm Transplantation
 Research Support, Non-U.S. Gov't
 Research Support, U.S. Gov't, P.H.S.
 Tissue Distribution
 Transplantation, Heterologous
 Tritium
 RN 10028-17-8 (Tritium); 20830-81-3 (Daunorubicin); 23214-92-8 (Doxorubicin)
 CN 0 (Antibodies, Monoclonal); 0 (Carcinoembryonic Antigen); 0 (Drug Carriers); 0 (Immunotoxins); 0 (Indicators and Reagents)

L242 ANSWER 119 OF 145 MEDLINE on STN.
 ACCESSION NUMBER: 91312479 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 1857447
 TITLE: Changes in the toxicity and therapeutic efficacy of daunorubicin **linked** with a biodegradable carrier.
 AUTHOR: Hrdina R; Bogusova T A; Kunova A; Kvetina J
 CORPORATE SOURCE: Institute of Experimental Biopharmacy, Czechoslovak Academy of Sciences, Hradec Kralove.
 SOURCE: Neoplasma, (1991) Vol. 38, No. 3, pp. 265-73.
 Journal code: 0377266. ISSN: 0028-2685.
 PUB. COUNTRY: Czechoslovakia
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199108

ENTRY DATE: Entered STN: 13 Sep 1991
Last Updated on STN: 6 Feb 1998
Entered Medline: 28 Aug 1991

ED Entered STN: 13 Sep 1991
Last Updated on STN: 6 Feb 1998
Entered Medline: 28 Aug 1991

AB The effects of the **linkage** of daunorubicin (DNR) and the synthetic biodegradable polymer polyhydroxyethyl-L-glutamine (PHEG) on general toxicity, therapeutic efficacy, and acute organ toxicity were investigated. General toxicity was assessed by means of mortality, or body weight changes of male CBA mice weighing 22-25 g after a single-dose i.p. administration of 5 or 2.5 mg/kg DNR, free or bound. **Linked** DNR at a larger lethal dose significantly increased mean survival time (18 versus 12 days). Surprisingly, free DNR at a smaller dose produced larger increases in body weight as compared with **linked** DNR. The **linkage** of DNR and PHEG did not markedly change the therapeutic activity in three murine hemoblastoses--plasmacytoma MOPS 406, leukemia P388 and hemoblastosis La. Acute (24 h) changes in cardio- and hepatotoxicity were studied on female Wistar rats weighing 208 +/- 5 g after a single dose of 5 mg/kg i.v. both free and **linked** DNR, as well as after an administration of the PHEG polymer alone (200 mg/kg i.v.). Free DNR caused a three-fold increase in creatine kinase (CK) activity, the identical dose of **linked** DNR caused only a 1.7-fold increase. Free DNR administration resulted in a decrease in heart rate, other tested drugs did not significantly change either blood pressure or heart rate. Free DNR did not change the kinetics of bromsulphalein (BSP) except for a decrease in extraction effectivity. Both **linked** DNR and polymer alone significantly changed some kinetic parameters of BSP. The results showed that the biodegradable polymer PHEG cannot be clinically used due to its hepatotoxic action. On the other hand, a decrease in total toxicity and cardiotoxicity resulting from the **linkage** of DNR and PHEG, the therapeutic efficacy being preserved, stimulates the efforts to find a suitable polymer carrier of anthracyclines without more serious side-effects.

CT Check Tags: Female; Male
Animals
*Aza Compounds: CH, chemistry
Blood Pressure: DE, drug effects
Body Weight: DE, drug effects
Creatine Kinase: ME, metabolism
Daunorubicin: TU, therapeutic use
*Daunorubicin: TO, toxicity
*Drug Carriers: AD, administration & dosage
Drug Interactions
Heart Rate: DE, drug effects
Injections, Intraperitoneal
*Leukemia P388: DT, drug therapy
Leukemia P388: MO, mortality
Liver: DE, drug effects
Liver: ME, metabolism
Mice
Mice, Inbred Strains
*Nitriles: CH, chemistry
*Peptides
*Plasmacytoma: DT, drug therapy
Plasmacytoma: MO, mortality
*Pyrimidine Nucleosides: CH, chemistry
Sulfobromophthalein: PK, pharmacokinetics

RN 20830-81-3 (Daunorubicin); 27878-59-7 (poly-N(5)-(2-hydroxyethyl)glutamine); 297-83-6 (Sulfobromophthalein)

CN 0 (Aza Compounds); 0 (Drug Carriers); 0 (Nitriles); 0 (**Peptides**); 0 (Pyrimidine **Nucleosides**); EC 2.7.3.2 (Creatine Kinase)

L242 ANSWER 120 OF 145 MEDLINE on STN

ACCESSION NUMBER: 91098695 MEDLINE

DOCUMENT NUMBER: PubMed ID: 2268891

TITLE: Synthetic anthracyclines: regiospecific total synthesis of D-ring thiophene analogues of daunomycin.

AUTHOR: Kita Y; Kirihara M; Sekihachi J; Okunaka R; Sasho M; Mohri S; Honda T; Akai S; Tamura Y; Shimooka K

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Osaka University, Japan.

SOURCE: Chemical & pharmaceutical bulletin, (1990 Jul)

Vol. 38, No. 7, pp. 1836-43.

Journal code: 0377775. ISSN: 0009-2363.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199102

ENTRY DATE: Entered STN: 29 Mar 1991

Last Updated on STN: 3 Feb 1997

Entered Medline: 20 Feb 1991

ED Entered STN: 29 Mar 1991

Last Updated on STN: 3 Feb 1997

Entered Medline: 20 Feb 1991

AB The key anhydride 2-acetoxy-[2-carboxy-5-(trimethylsilyl)thiophen-3-yl]acetic acid anhydride (8), prepared from (2-carboxythiophen-3-yl)acetic acid (5), underwent a strong base-induced **cycloaddition** reaction with the chloroquinone acetal (11) to give the 7,7-ethylenedioxy-2-trimethylsilyl-6,7,8,9-tetrahydroanthra[2,3-b]thiophene-5,10-dione (12) regioselectively. Similarly, the regioisomeric 8,8-ethylenedioxy-2-trimethylsilyl-6,7,8,9-tetrahydroanthra[2,3-b]thiophene-5,10-dione (30) was obtained by the strong base-induced **cycloaddition** reaction of 8 with the chloroquinone acetal (29). These **cycloadducts** (12 and 30) were converted to D-ring thiophene analogues (28 and 38) of daunomycin (1a). Another D-ring thiophene analogue (42) which has a trimethylsilyl substituent in the D-ring was also prepared.

CT Animals

*Antibiotics, Antineoplastic: CS, chemical synthesis
Chemistry

*Daunorubicin: AA, analogs & derivatives

Daunorubicin: CS, chemical synthesis

Leukemia L1210: PA, pathology

Thiophenes: AN, analysis

Thiophenes: CS, chemical synthesis

Tumor Cells, Cultured: DE, drug effects

RN 20830-81-3 (Daunorubicin)

CN 0 (Antibiotics, Antineoplastic); 0 (Thiophenes)

L242 ANSWER 121 OF 145 MEDLINE on STN

ACCESSION NUMBER: 91033233 MEDLINE

DOCUMENT NUMBER: PubMed ID: 2227573

TITLE: Human ovarian cancers specifically bind daunorubicin-OC-125 conjugate: an immunofluorescence study.

AUTHOR: Dezso B; Torok I; Rosik L O; Sweet F

CORPORATE SOURCE: Department of Pathology, University Medical School of Debrecen, Hungary.

SOURCE: Gynecologic oncology, (1990 Oct) Vol. 39, No. 1, pp. 60-4.

JOURNAL code: 0365304. ISSN: 0090-8258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199012
ENTRY DATE: Entered STN: 8 Feb 1991
Last Updated on STN: 8 Feb 1991
Entered Medline: 7 Dec 1990

ED Entered STN: 8 Feb 1991

Last Updated on STN: 8 Feb 1991

Entered Medline: 7 Dec 1990

AB This study was designed to test the specific binding to human ovarian serous adenocarcinomas of a drug-antibody **conjugate** [daunorubicin (DNR-OC-125), made from a new analog (PIPP-DNR) of daunorubicin that chemically **links** the drug to monoclonal antibodies. We recently reported that the DNR-OC-125 **conjugate** is selectively toxic in vitro to dividing cell populations of the human ovarian cancer cell lines SK-OV-3 and OVCAR-3 that express the CA-125 antigen [F. Sweet, L. O. Rosik, G. M. Sommers, and J. L. Collins, Gynecol. Oncol. 34, 305-311 (1989)]. In the present study, immunofluorescence data show that the DNR-OC-125 **conjugate** has high affinity and specificity for proliferating malignant cells from human ovarian tumors. The results demonstrate that the DNR-OC-125 **conjugate** retains the specific binding to CA-125 antigenic sites characteristic of the OC-125 monoclonal antibody moiety. The DNR-OC-125 **conjugate** selectively binds to CA-125 antigen-positive ovarian cancerous tissue in both cryostat and paraffin-embedded tissue sections. This is consistent with the earlier in vitro data from dividing populations of two human ovarian cancer cell lines that revealed retention by the DNR-OC-125 **conjugate** of both the specificity due to OC-125 and the cytotoxicity of daunorubicin. The present immunofluorescence studies in the DNR-OC-125 **conjugate** is tested on human ovarian serous tumors indicate that the OC-125 monoclonal antibody can indeed serve as a cancer-targeting carrier for daunorubicin and its analogs.

CT Check Tags: Female

Antibodies, Monoclonal: ME, metabolism

*Antigens, Tumor-Associated, Carbohydrate: AN, analysis

Antigens, Tumor-Associated, Carbohydrate: IM, immunology

Cystadenocarcinoma: IM, immunology

*Cystadenocarcinoma: ME, metabolism

*Daunorubicin: ME, metabolism

Drug Carriers

Fluorescent Antibody Technique

Humans

*Immunotoxins: ME, metabolism

Ovarian Neoplasms: IM, immunology

*Ovarian Neoplasms: ME, metabolism

Research Support, Non-U.S. Gov't

RN 20830-81-3 (Daunorubicin)

CN 0 (Antibodies, Monoclonal); 0 (Antigens, Tumor-Associated, Carbohydrate); 0 (Drug Carriers); 0 (Immunotoxins)

L242 ANSWER 122 OF 145 MEDLINE on STN

ACCESSION NUMBER: 88193036 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3358905

TITLE: Anticancer agents **coupled** to N-(2-hydroxypropyl)methacrylamide copolymers. II. Evaluation of daunomycin **conjugates** in vivo against L1210

leukaemia.

AUTHOR: Duncan R; Kopeckova P; Strohalm J; Hume I C; Lloyd J B; Kopecek J

CORPORATE SOURCE: Department of Biological Sciences, University of Keele, Staffordshire, UK.

SOURCE: British journal of cancer, (1988 Feb) Vol. 57, No. 2, pp. 147-56.
Journal code: 0370635. ISSN: 0007-0920.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198805

ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 8 Mar 1990
Entered Medline: 31 May 1988

ED Entered STN: 8 Mar 1990
Last Updated on STN: 8 Mar 1990
Entered Medline: 31 May 1988

AB DBA2 mice were inoculated i.p. with 10(5)L1210 cells. Animals subsequently treated with daunomycin (single i.p. dose, 0.25-5.0 mg kg⁻¹) all died. The maximum increase in mean survival time observed was approximately 135%. Animals treated with N-(2-hydroxypropyl)methacrylamide (HPMA) copolymers **conjugated** to daunomycin (DNM) showed a significant increase in mean survival time when the polymer-drug **linkage** was biodegradable (i.e., Gly-Phe-Leu-Gly). Such treatment also produced a number of long term survivors (greater than 50 days). In contrast, HPMA copolymer **conjugated** to DNM via a non-degradable **linkage** (Gly-Gly) produced no increase in survival time relative to untreated control animals. The effect observed with biodegradable HPMA copolymer-DNM **conjugates** was dependent on the concentration of **conjugated** drug administered (optimum greater than 5 mg kg⁻¹); the frequency of administration (multiple doses were more effective than single); the timing of administration (single doses given on days 1 and 3 were most effective); and the site of tumour inoculation and route of drug administration. Biodegradable HPMA copolymer-DNM **conjugates** administered i.p. were active against L1210 inoculated s.c. at higher doses than required to curb a peritoneal tumour. Under certain experimental conditions polymer-DNM **conjugates** containing fucosylamine or galactosamine proved more active than **conjugates** without the **carbohydrate** moiety. The mechanism of drug-**conjugate** action in vivo is at present unclear. Radioiodination of polymer showed approximately 75% of polymer-drug **conjugate** to be excreted 24 h after i.p. administration. Synthesis of HPMA **conjugates** containing [3H]DNM showed that polymer containing Gly-Gly-[3H]DNM was excreted (60% of radioactivity in the urine, 24 h) in macromolecular form. In contrast polymer containing Gly-Phe-Leu-Gly-[3H]DNM was largely excreted in the form of low molecular weight species.

CT Check Tags: Male

*Acrylamides: AD, administration & dosage
Acrylamides: PK, pharmacokinetics
Animals
Body Weight: DE, drug effects

*Daunorubicin: AD, administration & dosage
Daunorubicin: PK, pharmacokinetics
Daunorubicin: TU, therapeutic use
Drug Carriers

*Leukemia L1210: DT, drug therapy
Leukemia L1210: ME, metabolism

Leukemia L1210: MO, mortality
Mice
Mice, Inbred DBA
Research Support, Non-U.S. Gov't
Time Factors
Tissue Distribution

RN 20830-81-3 (Daunorubicin); 21442-01-3 (N-(2-hydroxypropyl)methacrylamide)
CN 0 (Acrylamides); 0 (Drug Carriers)

L242 ANSWER 123 OF 145 MEDLINE on STN

ACCESSION NUMBER: 87128775 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3468994

TITLE: Anticancer agents **coupled** to N-(2-hydroxypropyl)methacrylamide copolymers. I. Evaluation of daunomycin and puromycin **conjugates** in vitro.

AUTHOR: Duncan R; Kopeckova-Rejmanova P; Strohalm J; Hume I; Cable H C; Pohl J; Lloyd J B; Kopecek J

SOURCE: British journal of cancer, (1987 Feb) Vol. 55, No. 2, pp. 165-74.

Journal code: 0370635. ISSN: 0007-0920.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198704

ENTRY DATE: Entered STN: 3 Mar 1990

Last Updated on STN: 3 Mar 1990

Entered Medline: 17 Apr 1987

ED Entered STN: 3 Mar 1990

Last Updated on STN: 3 Mar 1990

Entered Medline: 17 Apr 1987

AB During recent years N-(2-hydroxypropyl)methacrylamide (HPMA) copolymers have been developed as targetable drug carriers. These soluble synthetic polymers are internalized by cells by pinocytosis and they can be tailor-made to include **peptidyl** side-chains degradable intracellularly by specific lysosomal enzymes. Thus they provide the opportunity to achieve controlled intracellular delivery of anticancer agents. The anthracycline antibiotic daunomycin, and **protein** synthesis inhibitor puromycin, were bound to HPMA copolymers via several different **peptide** side-chains, including Gly-Gly, Gly-Phe-Leu-Gly and Gly-Phe-Leu. Incubation of polymer-drug **conjugates** with isolated lysosomal enzymes (either a mixture of rat liver lysosomal enzymes or purified thiol-dependent lysosomal **proteinases**, cathepsins L and B) showed that significant release of drug occurred over 20 h, more than 20% of daunomycin and more than 80% of puromycin being liberated. To test their pharmacological activity **conjugates** were incubated with either the mouse leukaemia L1210, or the human lymphoblastoid leukaemia CCRF in vitro. The **conjugates** tested were all less effective than free daunomycin, but they showed differential toxicity against L1210 depending on the amino acid sequence of their drug-polymer **linkage**. Inclusion of fucosylamine-terminating side-chains into the HPMA copolymer structure increased the affinity of **conjugates** for the L1210 cell membrane and resulted in increased toxicity. In contrast HPMA-daunomycin **conjugates** with or without fucosylamine affected CCRF cells equally, but this cell line was more sensitive than the mouse leukaemia to both free and polymer-bound daunomycin. Incubation of L1210 cells in polymer-bound daunomycin for 72 h, followed by plating cells out in low density in drug-free medium, showed that a concentration of polymer-bound

drug (184 micrograms ml⁻¹) could be selected to achieve a cytotoxic effect.

CT *Acrylates: AD, administration & dosage
 Animals
 Cell Division: DE, drug effects
 Cell Survival: DE, drug effects
 Chemistry
 Daunorubicin: ME, metabolism
 ***Daunorubicin: PD, pharmacology**
 Dose-Response Relationship, Drug
 Humans
 Leukemia: ME, metabolism
 *Leukemia L1210: PA, pathology
 *Leukemia, Lymphocytic: PA, pathology
 *Methacrylates: AD, administration & dosage
 Mice
 Puromycin: ME, metabolism
 ***Puromycin: PD, pharmacology**
 Research Support, Non-U.S. Gov't
 Vehicles

RN 20830-81-3 (**Daunorubicin**); 27813-02-1 (hydroxypropyl
 methacrylate); 53-79-2 (Puromycin)
 CN 0 (Acrylates); 0 (Methacrylates); 0 (Vehicles)

L242 ANSWER 124 OF 145 MEDLINE on STN

ACCESSION NUMBER: 86187732 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3964654

TITLE: Metal anthracycline **complexes** as a new class of
 anthracycline derivatives. Pd(II)-adriamycin and
 Pd(II)-daunorubicin **complexes**: physicochemical
 characteristics and antitumor activity.

AUTHOR: Fiallo M M; Garnier-Suillerot A

SOURCE: Biochemistry, (1986 Feb 25) Vol. 25, No. 4, pp.
 924-30.

Journal code: 0370623. ISSN: 0006-2960.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198605

ENTRY DATE: Entered STN: 21 Mar 1990

Last Updated on STN: 3 Feb 1997

Entered Medline: 27 May 1986

ED Entered STN: 21 Mar 1990

Last Updated on STN: 3 Feb 1997

Entered Medline: 27 May 1986

AB Pd(II) **complexes** of two anthracyclines, adriamycin and
 daunorubicin, have been studied. Using potentiometric absorption,
 fluorescence, and circular dichroism measurements, we have shown that
 adriamycin can form two **complexes** with Pd(II). The first
complex (I) involves two molecules of drug per Pd(II) ion; one of
 the molecules is chelated to Pd(II) through the carbonyl oxygen on C12 and
 the phenolate oxygen on C11, and the other one is bound to Pd(II) through
 the nitrogen of the amino **sugar**. This **complexation**
 induces a stacking of the two molecules of drug. In the second
complex (II), two Pd(II) ions are bound to two molecules of drug
 (A1 and A2). One Pd(II) is bound to the oxygen on the carbons C11 and C12
 of molecule A1 and the amino **sugar** of molecule A2 whereas the
 second Pd(II) ion is bound to the oxygen on C11 and C12 of molecule A2 and
 the amino **sugar** of molecule A1. The same **complexes**

are formed between Pd(II) and daunorubicin. The stability constant for **complex II** is $\beta = (1.3 \pm 0.5) \times 10^{22}$. Interaction with DNA has been studied, showing that almost no modification of the **complex** occurred. This **complex** displays antitumor activity against P-388 leukemia that compares with that of the free drug. **Complex II**, unlike adriamycin, does not catalyze the flow of electrons from NADH to molecular oxygen through NADH dehydrogenase.

CT Check Tags: Male

Animals

Cardiolipins

Cell Division: DE, drug effects

Circular Dichroism

Comparative Study

***Daunorubicin**

Daunorubicin: PD, pharmacology

Daunorubicin: TU, therapeutic use

***Doxorubicin**

Doxorubicin: PD, pharmacology

Doxorubicin: TU, therapeutic use

Hydrogen-Ion Concentration

Kinetics

*Leukemia P388: DT, drug therapy

*Leukemia, Experimental: DT, drug therapy

Liposomes

Mice

Mice, Inbred Strains

NADH Dehydrogenase: ME, metabolism

*Palladium

Palladium: PD, pharmacology

Palladium: TU, therapeutic use

Phosphatidylcholines

Research Support, Non-U.S. Gov't

Spectrometry, Fluorescence

Spectrophotometry

Structure-Activity Relationship

RN **20830-81-3 (Daunorubicin)**; 23214-92-8 (Doxorubicin); 7440-05-3 (Palladium)

CN 0 (Cardiolipins); 0 (Liposomes); 0 (Phosphatidylcholines); EC 1.6.99.3 (NADH Dehydrogenase)

L242 ANSWER 125 OF 145 MEDLINE on STN

ACCESSION NUMBER: 85039972 MEDLINE

DOCUMENT NUMBER: PubMed ID: 6541804

TITLE: Targeting of liposomes: monoclonal antibodies **coupled** to phospholipid vesicles provide selective transfer of trapped reagents into cultured cells.

AUTHOR: Guidoni L; O'Hara C J; Price G B; Shuster J; Fuks A

SOURCE: Tumour biology : the journal of the International Society for Oncodevelopmental Biology and Medicine, (1984) Vol. 5, No. 1, pp. 61-73.

Journal code: 8409922. ISSN: 1010-4283.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198412

ENTRY DATE: Entered STN: 20 Mar 1990

Last Updated on STN: 20 Mar 1990

Entered Medline: 11 Dec 1984

ED Entered STN: 20 Mar 1990

Last Updated on STN: 20 Mar 1990

Entered Medline: 11 Dec 1984

AB Monoclonal antibodies were incorporated in small unilamellar vesicles by means of ultrasonic irradiation. In order to increase the incorporation efficiency, the immunoglobulins were previously treated at low pH (pH 2), following recent suggestions on the existence of a lipid soluble conformational isomer for serum IgG. The lipid to **protein** ratios obtained were comparable to the values obtained by other authors using covalent **coupling** of the antibody to the lipid matrix. Liposome-incorporated monoclonal antibodies directed towards carcinoembryonic antigen (CEA) provided increased transfer of the fluorescent dye carboxyfluorescein from liposomes into cultured human colon carcinoma cells. Another independent experiment was performed on the drug-resistant CHO cell line B30, using a monoclonal antibody to a cell surface marker of drug resistance. Selective liposome mediate drug killing was observed following incubation of the cells with liposomes containing the antitumor agent drug, daunorubicin.

CT Check Tags: Female

Animals

*Antibodies, Monoclonal: AD, administration & dosage

Carcinoembryonic Antigen: IM, immunology

Cell Line

Cell Survival: DE, drug effects

Centrifugation, Density Gradient

Colonic Neoplasms

Cricetinae

Cricetulus

Daunorubicin: AD, administration & dosage

Drug Resistance

Humans

Immunoglobulin G: AD, administration & dosage

***Liposomes: AD, administration & dosage**

Microscopy, Electron

Ovary

Research Support, Non-U.S. Gov't

Sonication

RN 20830-81-3 (Daunorubicin)

CN 0 (Antibodies, Monoclonal); 0 (Carcinoembryonic Antigen); 0 (Immunoglobulin G); 0 (Liposomes)

L242 ANSWER 126 OF 145 MEDLINE on STN

ACCESSION NUMBER: 82197548 MEDLINE

DOCUMENT NUMBER: PubMed ID: 6952214

TITLE: A covalent **linkage** between daunorubicin and **proteins** that is stable in serum and reversible by lysosomal hydrolases, as required for a lysosomotropic drug-carrier **conjugate**: in vitro and in vivo studies.

AUTHOR: Trouet A; Masquelier M; Baurain R; Deprez-De Campeneere D

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1982 Jan) Vol. 79, No. 2, pp. 626-9.

Journal code: 7505876. ISSN: 0027-8424.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198207

ENTRY DATE: Entered STN: 17 Mar 1990

Last Updated on STN: 17 Mar 1990

Entered Medline: 22 Jul 1982

ED Entered STN: 17 Mar 1990
Last Updated on STN: 17 Mar 1990
Entered Medline: 22 Jul 1982

AB Daunorubicin (DNR) has been **conjugated** to succinylated serum **albumin** by an amide bond joining the amino group of the drug and a carboxyl side chain of the **protein** either directly or with the intercalation of a **peptide** spacer arm varying from one to four amino acids. During in vitro incubation with lysosomal hydrolases, intact DNR could be released extensively only from **conjugates** prepared with a tri- or **tetrapeptide** spacer arm. These latter **conjugates** remained very stable in the presence of serum. When tested in vivo against the intraperitoneal form of L1210 leukemia, the **conjugates** in which DNR was **linked** to serum **albumin** directly or via one amino acid were completely inactive but the **conjugate** with a **dipeptide** spacer arm was not more active than free DNR. In parallel with the in vitro studies, the best therapeutic results were obtained with the **conjugates** formed with tri- and **tetrapeptidic** spacer arms; they were much more active than DNR, inducing a high percentage of long-term survivors. Thus, use of a tri- or **tetrapeptide** spacer arm is essential to obtain DNR-**protein conjugates** that remain stable in serum and from which DNR can be released through the action of lysosomal hydrolases. The in vivo results suggest, moreover, that these **conjugates** are endocytosed by L1210 cells and that DNR is released intracellularly after digestion by lysosomal enzymes. This **conjugation** method can be applied to other drugs possessing a free amino group and to various potential carriers, such as antibodies, **polypeptide** hormones, and glycoproteins, that have amino or carboxyl side chains.

CT **Albumins**
Animals
*Daunorubicin: AD, administration & dosage
Daunorubicin: AA, analogs & derivatives
*Leukemia L1210: DT, drug therapy
Lysosomes: ME, metabolism
Mice
Research Support, Non-U.S. Gov't
Structure-Activity Relationship
Vehicles

RN 20830-81-3 (Daunorubicin)
CN 0 (Albumins); 0 (Vehicles)

L242 ANSWER 127 OF 145 MEDLINE on STN
ACCESSION NUMBER: 80228069 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7190153
TITLE: Studies related to anthracyclines. Part 1. Some **Diels-Alder** reactions of 4a,9a-epoxy-4a,9a-dihydroanthracene-1,4,9,10-tetrone.
AUTHOR: Chandler M; Stoodley R J
SOURCE: Journal of the Chemical Society. Perkin transactions 1, (1980) Vol. 4, pp. 1007-12.
Journal code: 7505598. ISSN: 0300-922X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198009
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990

Entered Medline: 23 Sep 1980

ED Entered STN: 15 Mar 1990
 Last Updated on STN: 15 Mar 1990
 Entered Medline: 23 Sep 1980

CT *Anthraquinones
 Anthraquinones: CS, chemical synthesis
 Chemistry
 Daunorubicin: AA, analogs & derivatives
 Doxorubicin: AA, analogs & derivatives
 *Naphthacenes
 Naphthacenes: CS, chemical synthesis
 Structure-Activity Relationship

RN 20830-81-3 (**Daunorubicin**); 23214-92-8 (Doxorubicin); 69448-06-2
 (4a,9a-epoxy-4a,9a-dihydroanthracene-1,4,9,10-tetrone)

CN 0 (Anthraquinones); 0 (Naphthacenes)

L242 ANSWER 128 OF 145 MEDLINE on STN
 ACCESSION NUMBER: 80212005 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 6992129
 TITLE: [Biological properties of antineoplastic drugs
 linked with macromolecular vehicles].
 Biologiczne wasciwosci lekow przeciwnowotworowych
 sprzezonych z makromolekularnymi nosnikami.

AUTHOR: Boratynski J
 SOURCE: Post py higieny i medycyny doswiadczalnej, (1980
 Nov-Dec) Vol. 33, No. 6, pp. 613-24. Ref: 75
 Journal code: 0421052. ISSN: 0032-5449.

PUB. COUNTRY: Poland
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)

LANGUAGE: Polish
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198008
 ENTRY DATE: Entered STN: 15 Mar 1990
 Last Updated on STN: 15 Mar 1990
 Entered Medline: 25 Aug 1980

ED Entered STN: 15 Mar 1990
 Last Updated on STN: 15 Mar 1990
 Entered Medline: 25 Aug 1980

CT **Albumins: AD, administration & dosage**
 *Antineoplastic Agents: TU, therapeutic use
 Chlorambucil: TU, therapeutic use
 Daunorubicin: TU, therapeutic use
 Doxorubicin: TU, therapeutic use
 Drug Synergism
 Fibrinogen: AD, administration & dosage
 Hormones: AD, administration & dosage
 Humans
 Immunoglobulin G: AD, administration & dosage
 Lectins
 Liposomes: AD, administration & dosage
 Macromolecular Substances
 Methotrexate: TU, therapeutic use
 *Neoplasms: DT, drug therapy
 Polylysine: AD, administration & dosage
 ***Vehicles**

RN 20830-81-3 (**Daunorubicin**); 23214-92-8 (Doxorubicin); 25104-18-1
 (Polylysine); 305-03-3 (Chlorambucil); 59-05-2 (Methotrexate); 9001-32-5
 (Fibrinogen)

CN 0 (**Albumins**); 0 (Antineoplastic Agents); 0 (Hormones); 0

(Immunoglobulin G); 0 (Lectins); 0 (Liposomes); 0 (Macromolecular Substances); 0 (Vehicles)

L242 ANSWER 129 OF 145 MEDLINE on STN

ACCESSION NUMBER: 81200443 MEDLINE

DOCUMENT NUMBER: PubMed ID: 6165055

TITLE: Antibodies as carriers for oncostatic materials.

AUTHOR: Arnon R; Hurwitz E; Sela M

SOURCE: Recent results in cancer research. Fortschritte der Krebsforschung. Progres dans les recherches sur le cancer, (1980) Vol. 75, pp. 236-45.

Journal code: 0044671. ISSN: 0080-0015.

PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198107

ENTRY DATE: Entered STN: 16 Mar 1990

Last Updated on STN: 16 Mar 1990

Entered Medline: 20 Jul 1981

ED Entered STN: 16 Mar 1990

Last Updated on STN: 16 Mar 1990

Entered Medline: 20 Jul 1981

AB Daunomycin **conjugates** to antitumor antibodies prepared either by direct binding or by binding via **dextran** retain both the antibody and the drug activity. Thus, the exert specific cytotoxicity in vitro toward tumor cells that the antibodies recognize. The macromolecular **conjugates** are able to penetrate the cells and concentrate in or on the nuclei. In vivo, the antitumor antibodies accumulate preferentially at the tumor metastases. Daunomycin-antibody **conjugates** are more active than the free drug in prolongation of survival of mice transplanted with the YAC lymphoma cells.

CT Animals

*Antibodies: AD, administration & dosage

Antibodies: AN, analysis

*Antineoplastic Agents: AD, administration & dosage

Daunorubicin: ME, metabolism

Daunorubicin: TU, therapeutic use

Dextrans: AD, administration & dosage

In Vitro

Lung Neoplasms: DT, drug therapy

Mice

Neoplasm Metastasis

*Neoplasms, Experimental: DT, drug therapy

Rabbits

*Vehicles

RN 20830-81-3 (Daunorubicin); 9004-54-0 (Dextrans)

CN 0 (Antibodies); 0 (Antineoplastic Agents); 0 (Vehicles)

L242 ANSWER 130 OF 145 MEDLINE on STN

ACCESSION NUMBER: 78219972 MEDLINE

DOCUMENT NUMBER: PubMed ID: 671105

TITLE: Electrocyclization reaction of higher **conjugated** polyenals: photochemical behaviors of retinal (vitamin A1 aldehyde) homologues.

AUTHOR: Tsukida K; Ito M; Kodama A

SOURCE: Journal of nutritional science and vitaminology, (1978) Vol. 24, No. 2, pp. 143-8.

Journal code: 0402640. ISSN: 0301-4800.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 197809
 ENTRY DATE: Entered STN: 14 Mar 1990
 Last Updated on STN: 14 Mar 1990
 Entered Medline: 15 Sep 1978

ED Entered STN: 14 Mar 1990

Last Updated on STN: 14 Mar 1990

Entered Medline: 15 Sep 1978

AB During the studies on a photoreaction of retinal, involving various kinds of (Z)-(E) isomerization, a heretofore unknown photoproduct of retinal was isolated in a pure state and was characterized unambiguously. Thus, direct irradiation of all-(E)-retinal (I) and of all-(E)-beta-lyonilidenecrotonaldehyde (II) in acetonitrile solution gave the corresponding 6e-electrocyclized photoproducts, (III) and (IV), both via the possible 7-(Z)-isomer intermediates of the parent **conjugated** polyenals. Unlike the lower members in the retinal series, it was also confirmed that sigmatropic rearrangement or photo-**Diels-Alder** reaction hardly proceeds in these higher members of the series mentioned above.

CT Acetonitriles

*Light

Photochemistry

Polymers

*Retinaldehyde: RE, radiation effects

*Vitamin A: AA, analogs & derivatives

RN 11103-57-4 (Vitamin A); 116-31-4 (**Retinaldehyde**)

CN 0 (Acetonitriles); 0 (Polymers)

L242 ANSWER 131 OF 145 MEDLINE on STN

ACCESSION NUMBER: 76216875 MEDLINE

DOCUMENT NUMBER: PubMed ID: 932859

TITLE: Daunomycinone analogues via the **Diels-Alder** reaction. Synthesis and chemistry of some 6,11-dihydroxy-5,12-naphthacenediones.

AUTHOR: Lee W W; Martinez A P; Smith T H; Henry D W

SOURCE: The Journal of organic chemistry, (1976 Jun 25)
 Vol. 41, No. 13, pp. 2296-303.
 Journal code: 2985193R. ISSN: 0022-3263.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 197608

ENTRY DATE: Entered STN: 13 Mar 1990

Last Updated on STN: 13 Mar 1990

Entered Medline: 23 Aug 1976

ED Entered STN: 13 Mar 1990

Last Updated on STN: 13 Mar 1990

Entered Medline: 23 Aug 1976

CT Chemistry

***Daunorubicin**: AA, analogs & derivatives

*Naphthacenes: CS, chemical synthesis

Research Support, U.S. Gov't, P.H.S.

RN 20830-81-3 (**Daunorubicin**)

CN 0 (Naphthacenes)

L242 ANSWER 132 OF 145 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 5

ACCESSION NUMBER: 95266814 EMBASE
DOCUMENT NUMBER: 1995266814
TITLE: New fluorogenic **dienophile**: Synthesis, reaction
with vitamin D, vitamin A and microcystins, and application
to fluorometric assays.
AUTHOR: Shimizu M.; Iwasaki Y.; Yamada S.
CORPORATE SOURCE: Division of Molecular Biology, Medical/Dental Engineering
Institute, Tokyo Medical and Dental University, 2-3-10,
Surugadai, Chiyoda-ku, Tokyo 101, Japan
SOURCE: Yakugaku Zasshi, (1995) Vol. 115, No. 8, pp. 584-602. .
ISSN: 0031-6903 CODEN: YKKZAJ
COUNTRY: Japan
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English; Japanese
ENTRY DATE: Entered STN: 26 Sep 1995
Last Updated on STN: 26 Sep 1995

ED Entered STN: 26 Sep 1995

Last Updated on STN: 26 Sep 1995

AB We designed and synthesized a new sensitive and highly reactive
fluorogenic reagent (1a, DMEQ-TAD) targeting a conjugated **diene**.
DMEQ-TAD reacted quantitatively with major vitamin D metabolites and
synthetic analogs under a variety of conditions to yield the corresponding
6,19-**cycloadducts** as a mixture of the C(6) epimers. The
stereochemistry of the adducts was determined by their CD spectra on the
basis of the exciton chirality method. The fluorescent products can be
quantified linearly down to 10 fmol by HPLC. The new fluorometric method
was successfully used in the assays of 25-OHD3, 24,25-(OH)2D3 and
25,26-(OH)2D3 in the human plasma. The method was proved to be reliable
and precise compared with the HPLC-UV assay method. Reactions of DMEQ-TAD
with retinoic acid (21a) and its geometrical isomers (21b-d) having a
conjugated pentaene system afforded 7,10-adducts (24a-d) as major products
together with 5,8-adducts (26a-d) in about 9:1 ratio (70-95% yield) except
for the 9Z-isomer (21e) which gave only a 5,8,11,14-bis-adduct (27).
DMEQ-TAD reacted with microcystins LR, YR and RR, at the conjugated
diene part to yield 4,7-**cycloadducts** as a pair of
epimers in good yield.

CT Medical Descriptors:

- *chemoluminescence
- *fluorescence
- *fluorometry
- circular dichroism
- drug structure
- drug synthesis
- high performance liquid chromatography
- human
- human tissue
- review
- stereochemistry
- ultraviolet radiation
- Drug Descriptors:
 - *cyanoginosin
 - *fluorescent dye: DV, drug development
 - *fluorescent dye: PD, pharmacology
 - *fluorescent dye: AN, drug analysis
 - *retinoic acid
 - *retinol

*vitamin d: AN, drug analysis
 24,25 dihydroxycolecalfiferol: AN, drug analysis
 25,26 dihydroxycolecalfiferol: AN, drug analysis
 calcifediol: AN, drug analysis
 dienophile: AN, drug analysis
 dienophile: PD, pharmacology
 dienophile: DV, drug development
 unclassified drug

RN (retinoic acid) 302-79-4; (retinol) **68-26-8**, 82445-97-4; (24,25 dihydroxycolecalfiferol) 40013-87-4; (25,26 dihydroxycolecalfiferol) 29261-12-9; (calcifediol) 19356-17-3

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ACCESSION NUMBER: 2000224549 EMBASE
 TITLE: New synthetic approach to arcyriaflavin-A and unsymmetrical analogs.
 AUTHOR: Adeva M.; Buono F.; Caballero E.; Medarde M.; Tome F.
 CORPORATE SOURCE: F. Tome, Lab. de Quimica Organ./Farmaceutica, Facultad de Farmacia, Universidad de Salamanca, 37007 Salamanca, Spain. frena@gugu.usal.es
 SOURCE: Synlett, (2000) No. 6, pp. 832-834. .
 ISSN: 0936-5214 CODEN: SYNLES
 COUNTRY: Germany
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 029 Clinical Biochemistry
 037 Drug Literature Index
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 20 Jul 2000
 Last Updated on STN: 20 Jul 2000

ED Entered STN: 20 Jul 2000

Last Updated on STN: 20 Jul 2000

AB A new synthetic approach to the natural product arcyriaflavin-A and unsymmetrical analogs is described. The approach is based on successive **Diels-Alder cycloaddition**, Fischer indolization and formal nitrene insertion processes.

CT Medical Descriptors:

*drug synthesis
 structure analysis
 reaction analysis
 chemical reaction
 article

Drug Descriptors:

*carbazole derivative: AN, drug analysis
 *carbazole derivative: DV, drug development
 *arcyriaflavin a: AN, drug analysis
 *arcyriaflavin a: DV, drug development
 natural product: AN, drug analysis
 natural product: DV, drug development
 staurosporine: AN, drug analysis
 rebeccamycin: AN, drug analysis
 unclassified drug

RN (staurosporine) 62996-74-1; (rebeccamycin) **93908-02-2**

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ACCESSION NUMBER: 2000320892 EMBASE
 TITLE: Dietary supplementation of a natural isomer mixture of beta-carotene inhibits oxidation of LDL derived from

patients with diabetes mellitus.

AUTHOR: Levy Y.; Zaltsberg H.; Ben-Amotz A.; Kanter Y.; Aviram M.

CORPORATE SOURCE: Dr. Y. Levy, Department of Medicine A, HaEmek Medical Center, Afula 18101, Israel

SOURCE: Annals of Nutrition and Metabolism, (2000) Vol. 44, No. 2, pp. 54-60. .
Refs: 37
ISSN: 0250-6807 CODEN: ANUMDS

COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 003 Endocrinology
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 5 Oct 2000
Last Updated on STN: 5 Oct 2000

ED Entered STN: 5 Oct 2000
Last Updated on STN: 5 Oct 2000

AB Background: Accelerated atherosclerosis is common in patients with diabetes mellitus which may be **linked** to increased lipid peroxidation. Therefore, we compared the oxidation of LDL derived from patients with diabetes to normoglycemic controls and followed-up the effect of dietary β -carotene supplementation on LDL oxidation. Methods: Twenty patients with long-standing non-insulin-dependent diabetes mellitus were studied in comparison with age- and sex-matched control subjects. Dunaliella bardawil- derived β -carotene was supplemented to the patients for 3 weeks, 60 mg daily dose. LDL oxidation was analyzed by measuring malondialdehyde (MDA), lipid peroxides (PD), and **conjugated dienes** (CD) generation in response to CuSO_4 -induced oxidation. LDL lipid composition and the LDL associated vitamins A, E and carotenoids were also measured. Results: LDL susceptibility to oxidation by CuSO_4 was increased in the patients by 40% with a 35% shorter lag time required for the initiation of LDL oxidation, i.e. 56 ± 6 min in patients vs. 85 ± 9 min in controls ($p < 0.01$). Patients showed increased cholesterol/phospholipid and polyunsaturated/saturated ratios, as well as reduced content of LDL associated vitamins. Upon β -carotene supplementation, there was a significant elevation in plasma and in LDL all-trans β -carotene [from 0.296 ± 0.020 to 0.968 ± 0.133 $\mu\text{g}/\text{mg}$ LDL **protein** ($p < 0.01$)] paralleled by a significant reduction in LDL susceptibility to oxidation, as exhibited by increased lag time up to 115 ± 10 min ($p < 0.01$) and reduction in MDA and PD generation (by 25 and 40%), respectively ($p < 0.01$). Conclusions: Increased susceptibility to oxidation of LDL derived from patients with diabetes mellitus is associated with abnormal LDL lipid composition and antioxidant content. Natural β -carotene dietary supplementation normalizes the enhanced LDL oxidation and consequently may be of importance in delaying accelerated development of atherosclerosis in these patients. Copyright (C) 2000 S. Karger AG, Basel.

CT Medical Descriptors:
*lipid peroxidation
*non insulin dependent diabetes mellitus
*atherosclerosis: CO, complication
*atherosclerosis: PC, prevention
*atherosclerosis: TH, therapy
*vitamin supplementation
treatment outcome
plant
vitamin blood level
lipid composition

fatty acid blood level
 cholesterol blood level
 phospholipid blood level
 isomer
 antioxidant activity
 human
 male
 female
 clinical article
 clinical trial
 controlled study
 adult
 article
 priority journal
 Drug Descriptors:
 *low density lipoprotein: EC, endogenous compound
 *beta carotene
 malonaldehyde
 lipid peroxide
 alkadiene
 copper sulfate
 retinol: EC, endogenous compound
 alpha tocopherol: EC, endogenous compound
 carotenoid: EC, endogenous compound
 cholesterol: EC, endogenous compound
 phospholipid: EC, endogenous compound
 polyunsaturated fatty acid: EC, endogenous compound
 saturated fatty acid: EC, endogenous compound
 RN (beta carotene) 7235-40-7; (malonaldehyde) 542-78-9; (copper sulfate)
 7758-98-7, 7758-99-8; (retinol) **68-26-8**, 82445-97-4; (alpha
 tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9;
 (cholesterol) 57-88-5

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ACCESSION NUMBER: 1999147063 EMBASE
 TITLE: A Diels-Alder, retro-Diels-Alder approach to arcyriaflavin-A.
 AUTHOR: Manuel M.; Marques B.; Lobo A.M.; Prabhakar S.; Branco P.S.
 CORPORATE SOURCE: A.M. Lobo, Seccao de Quimica Organica Aplicada, Departamento de Quimica, Ctro. de Quimica Fina Biotecnologia, 2825-114 Monte de Caparica, Portugal
 SOURCE: Tetrahedron Letters, (7 May 1999) Vol. 40, No. 19, pp. 3795-3796.
 Refs: 14
 ISSN: 0040-4039 CODEN: TELEAY
 PUBLISHER IDENT.: S 0040-4039(99)00529-8
 COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 037 Drug Literature Index
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 3 Jun 1999
 Last Updated on STN: 3 Jun 1999
 ED Entered STN: 3 Jun 1999
 Last Updated on STN: 3 Jun 1999
 AB 2,2'-Bi-indolyl-3,3'-dithiete and maleimide participate in a [4 + 2] cycloaddition reaction to provide arcyriaflavin-A.
 CT Medical Descriptors:
 *drug binding

*drug conformation
 reaction analysis
 structure analysis
 analytic method
 cytotoxicity
 hydrogenation
 enzyme inhibition
 thrombocyte aggregation
 article

Drug Descriptors:

*alkaloid: AN, drug analysis
 *alkaloid: DV, drug development
 *arcyriaflavin a: AN, drug analysis
 *arcyriaflavin a: DV, drug development
 *arcyriaflavin a: TO, drug toxicity
 protein kinase c
 staurosporine: AN, drug analysis
 rebeccamycin: AN, drug analysis
 protein kinase inhibitor: AN, drug analysis
 tan 999: AN, drug analysis
 tan 999: DV, drug development
 be 13793: AN, drug analysis
 be 13793: DV, drug development

RN (protein kinase c) 141436-78-4; (staurosporine) 62996-74-1; (rebeccamycin)

93908-02-2

CN Tan 999; Be 13793

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ACCESSION NUMBER: 1999105531 EMBASE

TITLE: Effect of hydrosoluble coenzyme Q10 on blood pressures and insulin resistance in hypertensive patients with coronary artery disease.

AUTHOR: Singh R.B.; Niaz M.A.; Rastogi S.S.; Shukla P.K.; Thakur A.S.

CORPORATE SOURCE: Prof. R.B. Singh, Heart Research Lab., MHRC, Civil Lines, Moradabad-10 (UP) 244001, India

SOURCE: Journal of Human Hypertension, (1999) Vol. 13, No. 3, pp. 203-208. .
 Refs: 37

ISSN: 0950-9240 CODEN: JHHYEN

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
 030 Pharmacology
 037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 28 Apr 1999

Last Updated on STN: 28 Apr 1999

ED Entered STN: 28 Apr 1999

Last Updated on STN: 28 Apr 1999

AB In a randomised, double-blind trial among patients receiving antihypertensive medication, the effects of the oral treatment with coenzyme Q10 (60 mg twice daily) were compared for 8 weeks in 30 (coenzyme Q10: group A) and 29 (B vitamin complex: group B) patients known to have essential hypertension and presenting with coronary artery disease (CAD). After 8 weeks of follow-up, the following indices were reduced in the coenzyme Q10 group: systolic and diastolic blood pressure, fasting and 2-h plasma insulin, glucose, triglycerides, lipid peroxides,

malondialdehyde and **diene conjugates**. The following indices were increased: HDL-cholesterol, vitamins A, C, E and beta-carotene (all changes $P < 0.05$). The only changes in the group taking the B vitamin **complex** were increases in vitamin C and beta-carotene ($P < 0.05$). These findings indicate that treatment with coenzyme Q10 decreases blood pressure possibly by decreasing oxidative stress and insulin response in patients with known hypertension receiving conventional antihypertensive drugs.

CT Medical Descriptors:

*blood pressure
 *insulin resistance: CO, complication
 *essential hypertension: DT, drug therapy
 *essential hypertension: ET, etiology
 *coronary artery disease
 diastolic blood pressure
 systolic blood pressure
 insulin blood level
 triacylglycerol blood level
 glucose blood level
 cholesterol blood level
 vitamin blood level
 insulin response
 oxidative stress
 human
 male
 female
 major clinical study
 controlled study
 adult
 oral drug administration
 clinical trial
 randomized controlled trial
 double blind procedure
 article

Drug Descriptors:

*ubidecarenone: CT, clinical trial
 *ubidecarenone: CB, drug combination
 *ubidecarenone: DT, drug therapy
 lipid peroxide: EC, endogenous compound
 glucose: EC, endogenous compound
 triacylglycerol: EC, endogenous compound
 insulin: EC, endogenous compound
 malonaldehyde: EC, endogenous compound
alkadiene: EC, endogenous compound
 high density lipoprotein cholesterol: EC, endogenous compound
 ascorbic acid: EC, endogenous compound
 retinol: EC, endogenous compound
 alpha tocopherol: EC, endogenous compound
 beta carotene: EC, endogenous compound

vitamin b complex

antihypertensive agent: CB, drug combination
 antihypertensive agent: DT, drug therapy
 q gel: CT, clinical trial
 q gel: CB, drug combination
 q gel: DT, drug therapy

RN (ubidecarenone) 303-98-0; (glucose) 50-99-7, 84778-64-3; (insulin) 9004-10-8; (malonaldehyde) 542-78-9; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (retinol) 68-26-8, 82445-97-4; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (beta carotene) 7235-40-7

CN Q gel
CO Tischon (United States)

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ACCESSION NUMBER: 1999263142 EMBASE
TITLE: Nitroxide stable radical suppresses autoimmune uveitis in rats.
AUTHOR: Zamir E.; Zhang R.; Samuni A.; Kogan M.; Pe'er J.
CORPORATE SOURCE: Dr. E. Zamir, Department of Ophthalmology, Hadassah University Hospital, P.O. Box 12000, 91120 Jerusalem, Israel. zami@md2.huji.ac.il
SOURCE: Free Radical Biology and Medicine, (1999) Vol. 27, No. 1-2, pp. 7-15. .
Refs: 23
ISSN: 0891-5849 CODEN: FRBMEH
PUBLISHER IDENT.: S 0891-5849(99)00026-X
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 12 Aug 1999
Last Updated on STN: 12 Aug 1999

ED Entered STN: 12 Aug 1999

Last Updated on STN: 12 Aug 1999

AB Free radicals have been implicated in the pathogenesis of experimental autoimmune uveoretinitis (EAU). Nitroxides are stable radicals with a superoxide-dismutase-mimicking activity, which exert an anti-inflammatory effect in various animal models of oxidative damage and inflammation, such as experimental colitis and head trauma. We examined the use of the SOD mimic nitroxide 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-N-oxyl (TPL) to suppress EAU. Adult male Lewis rats were immunized with 125 µg/rat synthetic human retinal S-Ag, emulsified with Freund's adjuvant. Intravenous pertussis toxin was simultaneously injected. Beginning on Day 6, rats were injected with a daily intraperitoneal dose of 35, 175 or 350 µmol/rat of the nitroxide TPL. Control rats received intraperitoneal normal saline. The animals were examined daily, and on the 19th day the eyes were enucleated. Aqueous **protein** concentrations and retinal lipid peroxidation product levels (**ketodienes** and **conjugated dienes**) were determined. Histological sections were stained and examined microscopically. TPL was found to penetrate the aqueous humor readily. Beginning on day 12, rats developed a severe pan-uveitis. Rats in the treatment group had a lower mean clinical and histological score than that of controls. Levels of aqueous humor **protein**, retinal **conjugated diens** and ketodiens were all significantly lower in the treatment group. This effect was more pronounced with the lower TPL concentration. We conclude that TPL reduces clinical, biochemical and histopathological severity of S-Ag induced EAU in Lewis rats. This effect is probably mediated by removal of superoxide radicals, but other mechanisms may also be involved.

CT Medical Descriptors:
*autoimmune disease
*uveoretinitis
oxidative stress
inflammation
antiinflammatory activity

immunostimulation
 lipid peroxidation
 histopathology
 aqueous humor
 nonhuman
 male
 rat
 animal experiment
 animal model
 controlled study
 animal tissue
 article
 priority journal
 Drug Descriptors:
 *free radical
 *nitroxide derivative
 *tempol
 *retinal
 *pertussis toxin
 superoxide dismutase

alkadiene: EC, endogenous compound

RN (tempol) 2226-96-2; (retinal) 116-31-4; (pertussis toxin)
 70323-44-3; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1

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ACCESSION NUMBER: 1998353115 EMBASE
 TITLE: Randomized, double-blind placebo-controlled trial of coenzyme Q10 in patients with acute myocardial infarction.
 AUTHOR: Singh R.B.; Wander G.S.; Rastogi A.; Shukla P.K.; Mittal A.; Sharma J.P.; Mehrotra S.K.; Kapoor R.; Chopra R.K.
 CORPORATE SOURCE: Dr. R.B. Singh, Heart Research Lab, MHRC, Civil Lines, Moradabad-10 (UP) 244001, India
 SOURCE: Cardiovascular Drugs and Therapy, (1998) Vol. 12, No. 4, pp. 347-353. .
 Refs: 35
 ISSN: 0920-3206 CODEN: CDTHET
 COUNTRY: United States
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
 029 Clinical Biochemistry
 037 Drug Literature Index
 038 Adverse Reactions Titles
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 9 Nov 1998
 Last Updated on STN: 9 Nov 1998

ED Entered STN: 9 Nov 1998

Last Updated on STN: 9 Nov 1998

AB The effects of oral treatment with coenzyme Q10 (120 mg/d) were compared for 28 days in 73 (intervention group A) and 71 (placebo group B) patients with acute myocardial infarction (AMI). After treatment, angina pectoris (9.5 vs. 28.1), total arrhythmias (9.5% vs. 25.3%), and poor left ventricular function (8.2% vs. 22.5%) were significantly (P < 0.05) reduced in the coenzyme and group than placebo group. Total cardiac events, including cardiac deaths and nonfatal infarction, were also significantly reduced in the coenzyme Q10 group compared with the placebo group (15.0% vs. 30.9%, P < 0.02). The extent of cardiac disease, elevation in cardiac enzymes, and oxidative stress at entry to the study were comparable between the two groups. Lipid peroxides, diene

conjugates, and malondialdehyde, which are indicators of oxidative stress, showed a greater reduction in the treatment group than in the placebo group. The antioxidants vitamin A, E, and C and beta-carotene, which were lower initially after AMI, increased more in the coenzyme Q10 group than in the placebo group. These findings suggest that coenzyme Q10 can provide rapid protective effects in patients with AMI if administered within 3 days of the onset of symptoms. More studies in a larger number of patients and long-term follow-up are needed to confirm our results.

CT Medical Descriptors:

*acute heart infarction: DI, diagnosis
 *acute heart infarction: DT, drug therapy

angina pectoris
 heart arrhythmia
 heart left ventricle function
 heart death
 oxidative stress
 symptom
 time
 follow up
 nausea: SI, side effect
 vomiting: SI, side effect
 headache: SI, side effect
 epigastric pain: SI, side effect
 hypotension: SI, side effect

human

male

female

major clinical study

controlled study

adult

oral drug administration

clinical trial

randomized controlled trial

double blind procedure

article

priority journal

Drug Descriptors:

*ubidecarenone: AE, adverse drug reaction

*ubidecarenone: DT, drug therapy

heart enzyme: EC, endogenous compound

lipid peroxide: EC, endogenous compound

alkadiene: EC, endogenous compound

malonaldehyde: EC, endogenous compound

antioxidant: EC, endogenous compound

retinol: EC, endogenous compound

ascorbic acid: EC, endogenous compound

alpha tocopherol: EC, endogenous compound

beta carotene: EC, endogenous compound

q gel: DT, drug therapy

unclassified drug

RN (ubidecarenone) 303-98-0; (malonaldehyde) 542-78-9; (retinol)

68-26-8, 82445-97-4; (ascorbic acid) 134-03-2, 15421-15-5,

50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7,

59-02-9; (beta carotene) 7235-40-7

CO Tishcon (United States)

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ACCESSION NUMBER: 96328452 EMBASE

DOCUMENT NUMBER: 1996328452

TITLE: Asymmetric synthesis and DNA intercalation of
 (-)-6-[[[aminoalkyl]oxy]methyl]-4-demethoxy-6,7-
 dideoxydaunomycinones.

AUTHOR: Dienes Z.; Vogel P.

CORPORATE SOURCE: Section de Chimie de l'Universite, BCH,1015
 Lausanne-Dorigny, Switzerland

SOURCE: Journal of Organic Chemistry, (1996) Vol. 61, No. 20, pp.
 6958-6970. .
 ISSN: 0022-3263 CODEN: JOCEAH

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 016 Cancer
 029 Clinical Biochemistry
 030 Pharmacology
 037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 3 Dec 1996
 Last Updated on STN: 3 Dec 1996

ED Entered STN: 3 Dec 1996
 Last Updated on STN: 3 Dec 1996

AB The BF₃·Et₂O-promoted **Diels-Alder** addition of
 1-acetylvinyl RADO(Et)-ate (RADO(Et)-ate = 3-ethyl-2-oxo-6,8-dioxa-3-
 azabicyclo[3.2.1]octane-7-exo-carboxylate) to 1-(dimethoxymethyl)-2,3,5,6-
 tetramethylidene-7-oxabicyclo[2.2.1]heptane led to one major monoadduct
 that added to 1,2-didehydrobenzene and was converted into
 (-)-4-demethoxy-7-deoxydaunomycinone and (2R)-12-acetoxy-2-acetyl-5-
 (bromomethyl)-1,2,3,4-tetrahydronaphthacene-2-yl RADO(Et)-ate. The latter
 compound was used to construct (8R)-8-acetyl-6,8-dihydroxy-11-[[[3'-
 [(aminopropyl)oxy]-, -4'-[(aminobutyl)oxy], and -5'-
 [(aminopentyl)oxy]methyl]-7,8,9,10-tetrahydronaphthacene-5,12-dione
 hydrochloride (-)-8, (-)-9, (-)-16, respectively, as well as
 (8R)-8-acetyl-6,8-dihydroxy-11-[[[2'-[(3'-aminopropyl)amino]ethyl]oxy
]-((-)-11) and -[[[3'-[(3'-aminopropyl)amino]propyl]oxy]methyl]-7,8,9,10-
 tetrahydronaphthacene-5,12-dione hydrochloride ((-)-12).
 (8R)-8-Acetyl-6,8-dihydroxy-11-[[[α-L-daunosaminyloxy]methyl]-
 7,8,9,10-tetrahydronaphthacene-5,12-dione hydrochloride ((-)-13), a mimic
 of idarubicin, was also prepared. Absorbance and fluorescence titration
 experiments showed (-)-8, (-)-9, and (-)-16 to intercalate calf thymus DNA
 whereas (-)-11, (-)-12, and (-)-13 did not. The best intercalator was
 (-)-9 (K(b) = (1.1 ± 0.1) × 10⁵ M⁻¹) with the [(4'-aminobutyl)oxy]-
 methyl chain. Inhibition of topoisomerase II-induced DNA strand
 religation was observed for (-)-8 at a concentration of 50 μM.

CT Medical Descriptors:
 *dna binding
 *drug synthesis
 *enzyme inhibition
 article
 chirality
 human
 in vitro study
 nonhuman
 reaction analysis
 structure activity relation
 Drug Descriptors:
 *anthracyclinone derivative: DV, drug development
 *anthracyclinone derivative: CM, drug comparison
 *anthracyclinone derivative: AN, drug analysis
 *antineoplastic antibiotic: AN, drug analysis
 *antineoplastic antibiotic: DV, drug development

*antineoplastic antibiotic: CM, drug comparison
 *daunomycinone derivative: AN, drug analysis
 *daunomycinone derivative: DV, drug development
 *daunomycinone derivative: CM, drug comparison
 *dna topoisomerase: EC, endogenous compound
 *dna topoisomerase (atp hydrolysing): EC, endogenous compound
 daunorubicin
 daunorubicin derivative: AN, drug analysis
 daunorubicin derivative: DV, drug development
 daunorubicin derivative: CM, drug comparison
 doxorubicin
 unclassified drug

RN (dna topoisomerase) 80449-01-0; (daunorubicin) 12707-28-7,
 20830-81-3, 23541-50-6; (doxorubicin) 23214-92-8, 25316-40-9

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ACCESSION NUMBER: 96334269 EMBASE

DOCUMENT NUMBER: 1996334269

TITLE: Oxidative stress and antioxidant status in
 β -thalassemia major: Iron overload and depletion of
 lipid-soluble antioxidants.

AUTHOR: Livrea M.A.; Tesoriere L.; Pintaudi A.M.; Calabrese A.;
 Maggio A.; Freisleben H.-J.; D'Arpa D.; D'Anna R.;
 Bongiorno A.

CORPORATE SOURCE: Ist. di Farmacologia/Farmacognosia, Universita di Palermo,
 Via C. Forlanini 1, 90134 Palermo, Italy

SOURCE: Blood, (1996) Vol. 88, No. 9, pp. 3608-3614. .

ISSN: 0006-4971 CODEN: BLOOAW

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 022 Human Genetics
 025 Hematology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 3 Dec 1996

Last Updated on STN: 3 Dec 1996

ED Entered STN: 3 Dec 1996

Last Updated on STN: 3 Dec 1996

AB Because of continuous blood transfusions, thalassemia patients are
 subjected to peroxidative tissue injury by the secondary iron overload.
 In accordance, analysis of serum from 42 β -thalassemia patients, aged
 4 to 40 years, showed that the mean concentrations of **conjugated**
diene lipid hydroperoxides (CD), lipoperoxides evaluated as
 malondialdehyde/thiobarbituric acid (MDA/TBA) adducts, and **protein**
 carbonyls increased about twofold with respect to control. Ferritin
 levels were positively correlated with the amount of MDA ($r = .41$; $P =$
 $.007$) and showed a positive trend with CD ($r = .31$; $P = .07$) and
protein carbonyls ($r = .35$; $P = .054$), as further evidence of the
 deleterious effects of high tissue iron levels. Marked changes in the
 antioxidant pattern were also observed in all patients. Evidence is
 presented of a net drop in the concentration of ascorbate (-44%), vitamin
 E (-42%), vitamin A (-44%). β -carotene (-29%), and lycopene (-67%).
 On the other hand, an increase of uric acid and bilirubin was observed,
 whereas serum **albumin** and glutathione were in the normal range
 in all patients. As a result, the total serum antioxidant potential,
 measured as trolox equivalent antioxidant capacity appeared significantly
 decreased by 14%. Serum levels of vitamin E were inversely correlated
 with ferritin ($r = -.45$; $P = .003$), suggesting a major consumption of
 this antioxidant under iron overload. Nontransferrin bound iron (NTBI)

was in the range 4.5 to 54.8 µg/dL (mean, 21.8 ± 13.9). Although NTBI had a positive trend with ferritin ($r = .37$, $P = .03$), no clear correlation was found with either MDA or vitamin E. A mild to severe hepatic damage, as assessed by serum transaminases, was shown in 24 of 42 patients. Serum levels of vitamin E ($r = -.49$, $P = .015$), vitamin A ($r = -.48$, $P = .016$) and lycopene ($r = -.47$, $P = .020$), were inversely correlated with the levels of transaminases. On the other hand, lipid-soluble antioxidants in thalassemia patients were depleted to the same extent in hepatitis C virus (HCV)-infected (31 subjects) and in HCV-uninfected (10 subjects), while in the normal range in serum from 30 nonthalassemic patients with HCV-related chronic hepatitis. These results point out that the iron-induced liver damage in thalassemia may play a major role in the depletion of lipid-soluble antioxidants. The variations of the parameters evaluated in the present study were not correlated with the age of the patients. Our results suggest that the measurement of peroxidation products, matched with evaluation of antioxidants, may be a simple measure of iron toxicity in thalassemia, in addition to the conventional indices of iron status.

CT Medical Descriptors:

*beta thalassemia: TH, therapy
 *beta thalassemia: CN, congenital disorder
 *iron overload: CO, complication
 *liver injury

adolescent

adult

article

blood transfusion

child

clinical article

controlled study

female

hepatitis c

hepatitis c virus

human

iron chelation

male

oxidative stress

priority journal

Drug Descriptors:

*antioxidant

*iron

*lipid peroxide

alpha tocopherol

aminotransferase

ascorbic acid

beta carotene

ferritin

glutathione

lipid hydroperoxide

lycopene

malonaldehyde

retinol

serum albumin

thiobarbituric acid

trolox c

RN (iron) 14093-02-8, 53858-86-9, 7439-89-6; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (aminotransferase) 9031-66-7; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (beta carotene) 7235-40-7; (ferritin) 9007-73-2; (glutathione) 70-18-8; (lycopene) 502-65-8; (malonaldehyde) 542-78-9; (retinol) 68-26-8, 82445-97-4; (serum

albumin) 9048-46-8; (thiobarbituric acid) 504-17-6; (trolox c)
56305-04-5

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ACCESSION NUMBER: 96227193 EMBASE

DOCUMENT NUMBER: 1996227193

TITLE: The effect of probucol on low density lipoprotein oxidation and femoral atherosclerosis.

AUTHOR: Regnstrom J.; Walldius G.; Nilsson S.; Schafer Elinder L.; Johansson J.; Molgaard J.; Holme I.; Olsson A.G.; Nilsson J.

CORPORATE SOURCE: King Gustaf V Research Institute, Department of Medicine, Karolinska Hospital, S-171 76 Stockholm, Sweden

SOURCE: Atherosclerosis, (1996) Vol. 125, No. 2, pp. 217-229. .
ISSN: 0021-9150 CODEN: ATHSBL

COUNTRY: Ireland

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 24 Sep 1996

Last Updated on STN: 24 Sep 1996

ED Entered STN: 24 Sep 1996

Last Updated on STN: 24 Sep 1996

AB The Probucol Quantitative Regression Swedish Trial (PQRST) investigated the effect of the lipid lowering and antioxidant drug probucol on the development of atherosclerosis in humans. 303 hypercholesterolemic patients were randomized to receive either probucol or placebo, in combination with dietary advice and cholestyramine for a three-year period. Probucol was not found to effect progression/regression of femoral atherosclerosis significantly as assessed by quantitative arteriography. To evaluate the effectiveness of probucol as an antioxidant during the study period, detailed analyses were performed on 42 of the randomized patients. During the trial, probucol-treated patients (n = 26) had 15% lower total cholesterol (P < 0.01) and 35% lower high-density lipoprotein (HDL) cholesterol (P < 0.0001) compared with controls (n = 16). Low density lipoprotein (LDL) from probucol treated individuals was more resistant to oxidation by Cu²⁺ as determined by the lag phase for the formation of **conjugated dienes** (220 ± 8 vs. 82 ± 7 min (mean ± S.E)), showed a 13 times lower formation of lipid peroxides, a 97% reduction in macrophage degradation and close to 90% less decrease in LDL receptor binding following oxidation as compared with controls (P < 0.001 for all differences). The results demonstrate that although probucol provided a significant protection against Cu²⁺-induced oxidative modification of LDL, it lacked effect on the development of femoral atherosclerosis. The relevance of these observations for the proposed role of lipid oxidation in atherosclerosis is discussed.

CT Medical Descriptors:

*atherosclerosis: DT, drug therapy

*hyperlipoproteinemia: DT, drug therapy
adult

antioxidant activity

article

clinical article

clinical trial

controlled study

drug efficacy

drug mechanism
 female
 femoral artery
 human
 human cell
 human tissue
 hypercholesterolemia: DT, drug therapy
 lipid peroxidation
 macrophage activation
 male
 priority journal

protein modification

quantitative diagnosis

Drug Descriptors:

*low density lipoprotein: EC, endogenous compound

*probucol: CT, clinical trial

*probucol: CB, drug combination

*probucol: DT, drug therapy

*probucol: PD, pharmacology

alpha tocopherol: EC, endogenous compound

beta carotene: EC, endogenous compound

colestyramine: CB, drug combination

colestyramine: PD, pharmacology

copper ion

high density lipoprotein: EC, endogenous compound

lycopene: EC, endogenous compound

retinol: EC, endogenous compound

RN (probucol) 23288-49-5; (alpha tocopherol) 1406-18-4, 1406-70-8,
 52225-20-4, 58-95-7, 59-02-9; (beta carotene) 7235-40-7; (colestyramine)
 11041-12-6, 58391-37-0; (lycopene) 502-65-8; (retinol) **68-26-8**,
 82445-97-4

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ACCESSION NUMBER: 95104177 EMBASE

DOCUMENT NUMBER: 1995104177

TITLE: The effects of desferrioxamine and ascorbate on oxidative stress in the streptozotocin diabetic rat.

AUTHOR: Young I.S.; Tate S.; Lightbody J.H.; McMaster D.; Trimble E.R.

CORPORATE SOURCE: Department Clinical Biochemistry, Institute Clinical Science, Royal Victoria Hospital, Grosvenor Road, Belfast BT12 6BA, United Kingdom

SOURCE: Free Radical Biology and Medicine, (1995) Vol. 18, No. 5, pp. 833-840.

ISSN: 0891-5849 CODEN: FRBMEH

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 003 Endocrinology
 006 Internal Medicine
 029 Clinical Biochemistry
 030 Pharmacology
 037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 3 May 1995

Last Updated on STN: 3 May 1995

ED Entered STN: 3 May 1995

Last Updated on STN: 3 May 1995

AB Oxidative stress and **protein** glycation are closely related

processes that may contribute to the development of complications in diabetes mellitus. Treatment with antioxidants could protect against these processes at a biochemical level, and we have therefore investigated the effects of ascorbate and desferrioxamine treatment in the streptozotocin diabetic rat. Diabetic animals were given ascorbate 1 g/l in drinking water or desferrioxamine 6 mg/kg/day by subcutaneous injection and were killed after 6 weeks. In diabetic animals, oxidative stress was increased as shown by increased levels of **conjugated dienes** (CD) in plasma and malondialdehyde (MDA) in plasma, erythrocyte membranes, and urine. In addition, there was depletion of the nutritional antioxidants ascorbate, alpha-tocopherol, and retinol. Insulin treatment returned all of these parameters to normal. Ascorbate supplementation or desferrioxamine treatment alone failed to reduce oxidative stress, but a combination of both interventions restored MDA, CD, and antioxidant vitamins to control values. Both ascorbate and desferrioxamine also reduced HbA1c and glycated **albumin** levels. Treatment with antioxidants can reduce both oxidative stress and **protein** glycation and may help to reduce the risk of developing diabetic complications. However, ascorbate can have both prooxidant and antioxidant effects in vivo, and its use in pharmacological doses should be approached with caution.

CT Medical Descriptors:

*lipid peroxidation
 *oxidative stress
 *streptozotocin diabetes: DT, drug therapy
 animal cell
 animal model
 animal tissue
 article
 blood analysis
 controlled study
 erythrocyte
 glycation
 male
 nonhuman
 oral drug administration
 priority journal
 rat
 subcutaneous drug administration
 urinalysis

Drug Descriptors:

*alpha tocopherol: EC, endogenous compound
 *ascorbic acid: EC, endogenous compound
 *ascorbic acid: CM, drug comparison
 *ascorbic acid: PD, pharmacology
 *ascorbic acid: DT, drug therapy
 *ascorbic acid: CB, drug combination
 *deferrioxamine: DT, drug therapy
 *deferrioxamine: PD, pharmacology
 *deferrioxamine: CM, drug comparison
 *deferrioxamine: CB, drug combination
 *dehydroascorbic acid: EC, endogenous compound
 *insulin: DT, drug therapy
 *malonaldehyde
 *retinol: EC, endogenous compound
 cholesterol: EC, endogenous compound
 deferrioxamine mesylate
 glucose: EC, endogenous compound

RN (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9;
 (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (deferrioxamine) 70-51-9;

(dehydroascorbic acid) 33124-69-5, 490-83-5; (insulin) 9004-10-8;
 (malonaldehyde) 542-78-9; (retinol) 68-26-8, 82445-97-4;
 (cholesterol) 57-88-5; (deferioxamine mesylate) 138-14-7, 5115-09-3;
 (glucose) 50-99-7, 84778-64-3

CN (1) Desferal
 CO (1) Ciba geigy; Sigma (United Kingdom)

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ACCESSION NUMBER: 87026323 EMBASE
 DOCUMENT NUMBER: 1987026323
 TITLE: Effect of vitamins A and E on modified low density lipoprotein in humans.
 AUTHOR: Avogaro P.; Bittolo Bon G.; Cazzolato G.; et al.
 CORPORATE SOURCE: Regional Center for the study of arteriosclerosis, Regional General Hospital Venice, Venice, Italy
 SOURCE: Acta Vitaminologica et Enzymologica, (1985) Vol. 7, No. SUPPL., pp. 95. .
 CODEN: AVEZA6
 COUNTRY: Italy
 DOCUMENT TYPE: Journal
 FILE SEGMENT: 037 Drug Literature Index
 029 Clinical Biochemistry
 LANGUAGE: English
 SUMMARY LANGUAGE: Italian
 ENTRY DATE: Entered STN: 11 Dec 1991
 Last Updated on STN: 11 Dec 1991

ED Entered STN: 11 Dec 1991
 Last Updated on STN: 11 Dec 1991

AB Atherosclerosis is a widespread phenomenon which is present in more than 50 percent of males aged more than 50 y. This enormous prevalence of the disease exists despite the fact that an abnormal receptorial mechanism is present only in 1 out of 500 newborns. It appears therefore that atherosclerosis is a morbid process which is determined through pathogenetic pathways other than a defective receptorial system. A new pathway has been recently outlined in the monocyte-macrophage line ('the scavenger system'). Through this line, low density lipoproteins may form the 'foam cells' bypassing the receptorial system. This is especially true for low density lipoproteins which undergo a modification through peroxidation, glycosilation and other mechanisms. A certain amount of a modified-LDL (m-LDL) is present, according to our records, in nearly all human beings. The m-LDL is characterized by a higher content of **protein**, a reduced content of cholesterol esters and by a dramatic decrease of phospholipids. Moreover LDL has a more electronegative charge and a higher content of peroxides and of **conjugated-dienes**. The amount of m-LDL is higher in atherosclerotic patients than in controls. Some patients, affected by coronary atherosclerosis and showing high levels of m-LDL, have received for 8 days 90.000 I.U. of vitamin A plus 210 mg of vitamin E daily. Following treatment the m-LDL was largely reduced to normal values in some cases. The surprising result is probably due to an anti-peroxidative effect of the two vitamins. The rapidity of the recorded results may be explained by the short half-life of LDL.

CT Medical Descriptors:
 *atherosclerosis
 *drug efficacy
 human
 priority journal
 oral drug administration
 normal human

etiology
human experiment
cardiovascular system
Drug Descriptors:
*alpha tocopherol
*low density lipoprotein
*retinol

RN (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9;
(retinol) 68-26-8, 82445-97-4

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ACCESSION NUMBER: 82006477 EMBASE

DOCUMENT NUMBER: 1982006477

TITLE: A chiral synthesis of L-acosamine and L-daunosamine via an enantioselective intramolecular [3 + 2] cycloaddition.

AUTHOR: Wovkulich P.M.; Uskokovic M.R.

CORPORATE SOURCE: Chem. Res. Dept., Hoffmann-La Roche Inc., Nutley, NJ 07110, United States

SOURCE: Journal of the American Chemical Society, (1981) Vol. 103, No. 13, pp. 3956-3958. .

CODEN: JACSAT

COUNTRY: United States

DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Dec 1991

Last Updated on STN: 9 Dec 1991

ED Entered STN: 9 Dec 1991

Last Updated on STN: 9 Dec 1991

CT Medical Descriptors:

*acosamine

*drug analysis

*drug identification

*drug structure

*drug synthesis

nuclear magnetic resonance

thin layer chromatography

preliminary communication

in vitro study

theoretical study

Drug Descriptors:

*daunorubicin

RN (daunorubicin) 12707-28-7, 20830-81-3, 23541-50-6

L242 ANSWER 145 OF 145 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1991:56520 BIOSIS

DOCUMENT NUMBER: PREV199140021875; BR40:21875

TITLE: SYNTHESIS OF HIGHLY FLUORESCENT DIENOPHILES FOR DETECTING CONJUGATED DIENES IN BIOLOGICAL FLUID.

AUTHOR(S): SHIMIZU M [Reprint author]; TAKAHASHI T; URATSUKA S; YAMADA S

CORPORATE SOURCE: INSTITUTE MEDICAL DENTAL ENGINEERING, TOKYO MEDICAL DENTAL UNIVERSITY, 2-3-10 SURUGADAI, KANDA, CHIYODA-KU, TOKYO 101, JPN

SOURCE: Journal of the Chemical Society Chemical Communications, (1990) No. 20, pp. 1416-1417.

CODEN: JCCCAT. ISSN: 0022-4936.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 19 Jan 1991
Last Updated on STN: 7 Mar 1991
ED Entered STN: 19 Jan 1991
Last Updated on STN: 7 Mar 1991
CC Biochemistry methods - General 10050
Biochemistry methods - Vitamins 10053
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biophysics - Methods and techniques 10504
IT Major Concepts
Biochemistry and Molecular Biophysics
IT Miscellaneous Descriptors
VITAMIN D METABOLITES VITAMIN A PROVITAMIN D ASSAYS
RN 1406-16-2 (VITAMIN D)
68-26-8Q (VITAMIN A)
11103-57-4Q (VITAMIN A)
57-87-4Q (PROVITAMIN D)
57-88-5Q (PROVITAMIN D)
115-61-7Q (PROVITAMIN D)
9061-77-2Q (PROVITAMIN D)

=> d que stat 153

```

L32      QUE ABB=ON PLU=ON IMMOBIL?
L33      QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
L34      QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
        MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSP
        HER? OR NANOSPHER?
L35      QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? O
        R SPHERIC?)
L36      QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (
        WALL? OR WELL? OR PLATE?)
L37      QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
L38      QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
L39      QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
        R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L40      QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
        POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
        NUCLEOTID? OR TETRANUCLEOTID?
L41      QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
        ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
        EOSID?
L42      QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
        OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
        HARID?
L43      QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
        ) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L44      QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
L45      QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L46      QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
L47      QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
        X?
L48      QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
        (DIELS (W)ALDER?)
L49      QUE ABB=ON PLU=ON DIENOPHIL?
L50 (    91)SEA FILE=HCAPLUS ABB=ON PLU=ON POZSGAY, V?/AU
L51 (    72)SEA FILE=HCAPLUS ABB=ON PLU=ON L50 AND (L32 OR L33 OR L34 OR
        L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
        L44 OR L45 OR L46 OR L47 OR L48 OR L49)
L52 (    38)SEA FILE=HCAPLUS ABB=ON PLU=ON L51 AND (L46 OR L47)
L53      4 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND (L48 OR L49)

```

=> d que stat 1210

```

L20      QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
L22      QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
        (DIELS (W)ALDER?)
L23      QUE ABB=ON PLU=ON DIENOPHIL?
L209     41 SEA FILE=EMBASE ABB=ON PLU=ON POZSGAY, V?/AU
L210     1 SEA FILE=EMBASE ABB=ON PLU=ON L209 AND (L20 OR L22 OR L23)

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=> d que stat 1190

```

L20      QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
L22      QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
        (DIELS (W)ALDER?)
L23      QUE ABB=ON PLU=ON DIENOPHIL?
L189     31 SEA FILE=MEDLINE ABB=ON PLU=ON POZSGAY, V?/AU
L190     2 SEA FILE=MEDLINE ABB=ON PLU=ON L189 AND (L20 OR L22 OR L23)

```

=> d que stat 1217

L217 6 SEA FILE=WPIX ABB=ON PLU=ON POZSGAY, V?/AU

=> d his l241

(FILE 'BIOSIS, PASCAL, JICST-EPLUS, CABA, LIFESCI, BIOENG, BIOTECHNO,
BIOTECHDS, VETU, VETB, DRUGU, DRUGB, SCISEARCH, CONF, CONFSCI, DISSABS'
ENTERED AT 13:34:31 ON 26 MAY 2006)

L241 8 S L240 AND (L22 OR L23)

=> d que stat l241

L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
(DIELS(W)ALDER?)

L23 QUE ABB=ON PLU=ON DIENOPHIL?

L30 QUE ABB=ON PLU=ON POZSGAY, V?/AU

L238 222 SEA L30

L240 48 SEA L238 AND (CONJUG? OR BIOCONJUG? OR ?CONJUG? OR L22 OR L23)

L241 8 SEA L240 AND (L22 OR L23)

=> dup rem l53 l217 l190 l210 l241

DUPLICATE IS NOT AVAILABLE IN 'CONF'.

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PROCESSING COMPLETED FOR L53

PROCESSING COMPLETED FOR L217

PROCESSING COMPLETED FOR L190

PROCESSING COMPLETED FOR L210

PROCESSING COMPLETED FOR L241

L243 13 DUP REM L53 L217 L190 L210 L241 (8 DUPLICATES REMOVED)

ANSWERS '1-4' FROM FILE HCAPLUS

ANSWERS '5-9' FROM FILE WPIX

ANSWER '10' FROM FILE EMBASE

ANSWERS '11-12' FROM FILE BIOSIS

ANSWER '13' FROM FILE SCISEARCH

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 13:50:07 ON 26 MAY 2006

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 19, 2006 (20060519/UP).

=> d ibib ed ab 1-13

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, EMBASE, WPIX, BIOSIS, SCISEARCH' -
CONTINUE? (Y)/N:y

L243 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:332579 HCAPLUS
DOCUMENT NUMBER: 136:359625
TITLE: **Conjugation of biomolecules using
Diels-Alder cycloaddition**
INVENTOR(S): **Pozsgay, Vince**
PATENT ASSIGNEE(S): The United States of America as represented by the
Department of Health and Human Services, USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002051788	A1	20020502	US 2001-919637	20010801
US 6673905	B2	20040106		
US 2002068818	A1	20020606	US 2001-927044	20010809
US 2004082067	A1	20040429	US 2003-692411	20031022
PRIORITY APPLN. INFO.:			US 2000-223959P	P 20000809
			US 2001-919637	A3 20010801

*parent
applic.*

OTHER SOURCE(S): MARPAT 136:359625

ED Entered STN: 03 May 2002

AB A method is provided for covalently linking
carbohydrates, proteins, nucleic acids
, and other **biomols.** under neutral conditions, by using a
Diels-Alder cycloaddn. reaction. Activated
carbon-carbon double bonds were attached to free amino sites of a carrier
protein, and a **conjugated** diene was attached to a
carbohydrate hapten. Spontaneous **coupling** of the
carbohydrate and the **protein** components under very mild
conditions provided glycoconjugates containing up to 37 **carbohydrate**
hapten units per carrier **protein** mol. The method is also
applicable to the **immobilization** of **biomols.** on
gel or **solid supports.** The **conjugated**
products are useful as immunogens and as anal. and diagnostic reagents.
Treatment of human serum **albumin** (HSA) with a 1.6M excess (based
on 58 available amino groups) of 3-sulfosuccinimidyl 4-maleimidobutyrate
in a pH 7.5 phosphate buffer afforded an intermediate, which contained an
average of 38 maleimido moieties/**protein** mol. A rhamnose-containing
diene was prepared and treated with the above intermediate. The average
incorporations of the hapten was a function of time and temperature Approx.

63%

of the available **dienophile** moieties in the **protein**
participated in adduct formation within 36 h, while at 40°, almost
complete utilization of these moieties occurred after 4 days.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L243 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2002:806294 HCAPLUS
DOCUMENT NUMBER: 138:170432

TITLE: Towards a synthetic glycoconjugate vaccine against
Neisseria meningitidis A
AUTHOR(S): Berkin, Ali; Coxon, Bruce; **Pozsgay, Vince**
CORPORATE SOURCE: Laboratory of Developmental and Molecular Immunity,
National Institute of Child Health and Human
Development, National Institutes of Health, Bethesda,
MD, 20892-2720, USA
SOURCE: Chemistry--A European Journal (2002), 8(19), 4424-4433
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:170432
ED Entered STN: 23 Oct 2002

AB **Albumin conjugates** of synthetic fragments of the
capsular **polysaccharide** of the Gram-neg. bacterium Neisseria
meningitidis serogroup A were prepared. The fragments include
monosaccharides α -D-ManpNAc-(1 \rightarrow O)-(CH₂)₂NH₂ and
6-O-P(O)(O-)-2- α -D-ManpNAc-(1 \rightarrow O)-(CH₂)₂NH₂,
disaccharide α -D-ManpNAc-[1 \rightarrow O-P(O)(O-) \rightarrow 6]-
 α -D-ManpNAc-(1 \rightarrow O)-(CH₂)₂NH₂, and **trisaccharide**
 α -D-ManpNAc-[1 \rightarrow O-P(O)(O-) \rightarrow 6]- α -D-ManpNAc-
[1 \rightarrow O-P(O)(O-) \rightarrow 6]- α -D-ManpNAc-(1 \rightarrow O)-(CH₂)₂NH₂.
Two monosaccharide blocks were employed as key intermediates. The
reducing-end mannose unit featured the NHAc group at C-2, and contained
the aminoethyl spacer as the aglycon for the final **bioconjugation**.
The inter-residual phosphodiester **linkages** were fashioned
from an anomERICALLY positioned H-phosphonate group in a 2-azido-mannose
building block. The spacer-**linked saccharides** were
N-acylated with hepta-4,6-dienoic acid and the resulting
conjugated diene-equipped **saccharides** were subjected to
Diels - Alder-type addition with maleimidobutyl-**group**
functionalized human serum **albumin** to form covalent
conjugates containing up to 26 **saccharide** haptens per
albumin mol. Complete ¹H, ¹³C, and ³¹P NMR assignments are given.
Antigenicity of the neoglycoconjugates was demonstrated by a double
immunodiffusion assay which indicated that a fragment as small as a
monosaccharide is recognized by a polyclonal meningococcus group A
antiserum and that the O-acetyl group(s) present in the natural capsular
material is not essential for antigenicity.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L243 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2002:635737 HCAPLUS

DOCUMENT NUMBER: 137:311123

TITLE: A Method for **Bioconjugation** of
Carbohydrates Using **Diels-**
Alder Cycloaddition

AUTHOR(S): **Pozsgay, Vince**; Vieira, Nancy E.; Yergey,
Alfred

CORPORATE SOURCE: Laboratory of Developmental and Molecular Immunity,
and Laboratory of Cellular and Molecular Biophysics,
National Institute of Child Health and Human
Development, National Institutes of Health, Bethesda,
MD, 20892-2720, USA

SOURCE: Organic Letters (2002), 4(19), 3191-3194
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:311123
ED Entered STN: 23 Aug 2002
AB **Diels-Alder-type cycloaddn.** of an electronically matched pair of **saccharide-linked conjugated** dienes and a **dienophile-equipped protein** gives neoglycoproteins at ambient temperature in pure water with a reaction half-life of approx. 2 h. Uncoupled **saccharides** can be recovered by diafiltration with complete conservation of the diene moiety, thus allowing their repeated use. The procedure described is the first for creating a carbon-carbon covalent bond in the **bioconjugation** step between a **saccharide** and a **protein**.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L243 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:637315 HCAPLUS
TITLE: Synthesis of **oligosaccharide-based glycoconjugate** vaccines
AUTHOR(S): **Pozsgay, Vince**
CORPORATE SOURCE: NICHD/IDMI, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001 (2001), CARB-050. American Chemical Society: Washington, D. C.
CODEN: 69BUZP
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English

ED Entered STN: 02 Sep 2001
AB Cell surface capsular **polysaccharides** and lipopolysaccharides of many human pathogenic bacteria are essential virulence factors and protective antigens which form the basis of their use as vaccines and vaccine components. We surmised that **oligosaccharide** fragments of such **polysaccharides** may also be suitable for the induction of protective antibodies when **coupled** to immunogenic **proteins**. The lecture will highlight recent advances towards synthetic oligosaccharide-containing bacterial vaccines including the synthesis of **oligosaccharides** related to the O-specific **polysaccharide** of Shigella dysenteriae type 1 and Shigella sonnei that can cause endemic and epidemic dysentery in many parts of the world. The utility of lipophilic protecting groups in **oligosaccharide** synthesis will be discussed. Approaches will be presented to synthetic fragments of the capsular **polysaccharide** of Group A Neisseria meningitidis, the causative organism of epidemic meningitis. A new **bioconjugation** method will be described for the covalent attachment of **saccharides** to **proteins** utilizing the **Diels-Alder cycloaddn.** reaction.

L243 ANSWER 5 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-757945 [74] WPIX
DOC. NO. CPI: C2004-266013
TITLE: New cholesterol containing compounds useful to induce an immune response to Borrelia burgdorferi and to treat or prevent Lyme disease.
DERWENT CLASS: B01 C03
INVENTOR(S): BEN-MENACHEM, G; KUBLER-KIELB, J; **POZSGAY, V**; ROBBINS, J; SCHNEERSON, R; ROBBINS, J B
PATENT ASSIGNEE(S): (USNA) US SEC OF NAVY; (USSH) US DEPT HEALTH & HUMAN

SERVICES
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004089969	A2	20041021	(200474)*	EN	62
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
EP 1613641	A2	20060111	(200604)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					
AU 2004228631	A1	20041021	(200624)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004089969	A2	WO 2004-US10007	20040402
EP 1613641	A2	EP 2004-758715	20040402
		WO 2004-US10007	20040402
AU 2004228631	A1	AU 2004-228631	20040402

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1613641	A2 Based on	WO 2004089969
AU 2004228631	A1 Based on	WO 2004089969

PRIORITY APPLN. INFO: US 2003-460184P 20030402

ED 20041117

AB WO2004089969 A UPAB: 20041117

NOVELTY - Cholesterol containing compounds (I) and their salts and complexes are new.

DETAILED DESCRIPTION - Cholesterol containing compounds of formula (I) and their salts and complexes are new.

R1 = amino (optionally substituted), azido, hydrazino, hydrazide, semicarbazide or carbohydrazide;

R2 = 1-25C (un)saturated chain (optionally substituted); and

L = O, N, S, P or alkylene.

INDEPENDENT CLAIMS are also included for:

(1) a conjugate comprising (I) covalently bound to at least one protein carrier;

(2) preparation of (I); and

(3) a purified compound of formula (II) and its salts and complexes.

ACTIVITY - Immunostimulant; Antibacterial.

MECHANISM OF ACTION - None given.

USE - (I) is used to induce an immune response to *Borrelia burgdorferi* and to treat or prevent Lyme disease (claimed). The ability of (A) to increase immune response was tested in mice and rabbits. The results showed that specific antibodies were induced in mice and rabbits. Dwg.0/15

L243 ANSWER 6 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-355679 [33] WPIX
 CROSS REFERENCE: 2002-616978 [66]; 2004-058995 [06]
 DOC. NO. CPI: C2004-135320
 TITLE: Coupling a first biomolecule to a second biomolecule, useful for producing immunogens, inoculants for generating antibodies and vaccines comprises contacting diene and dienophile components to permit a cycloaddition reaction.
 DERWENT CLASS: B04 D16
 INVENTOR(S): POZSGAY, V
 PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004082067	A1	20040429	(200433)*		17

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004082067	A1 Provisional	US 2000-223959P	20000809
	Div ex	US 2001-919637	20010801
		US 2003-692411	20031022

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2004082067	A1 Div ex	US 6673905

PRIORITY APPLN. INFO: US 2000-223959P 20000809; US
 2001-919637 20010801; US
 2003-692411 20031022

ED 20040525

AB US2004082067 A UPAB: 20040525

NOVELTY - Coupling a first biomolecule to a second biomolecule or to a gel or solid support comprises contacting the diene component with the dienophile component to permit a cycloaddition reaction to occur between the components.

DETAILED DESCRIPTION - Coupling a first biomolecule to a second biomolecule or to a gel or solid support comprises:

(a) covalently attaching a diene moiety to the first biomolecule to form a diene component;

(b) covalently attaching a dienophile to the second biomolecule to form a dienophile component; and

(c) contacting the diene component with the dienophile component to permit cycloaddition reaction to occur between the components.

The method also comprises:

(a) covalently attaching a diene moiety to a substrate selected from the biomolecule and the support to form a diene component;

(b) covalently attaching a dienophile to the substrate not selected in (a) to form a dienophile component; and

(c) contacting the diene component with the dienophile component to permit a cycloaddition reaction to occur between the components.

INDEPENDENT CLAIMS are also included for:

(1) a conjugate of biomolecules or a biomolecule with a solid or gel support prepared by the method above and having the formula (I);

(2) an immobilized biomolecule consisting of formula (I);

(3) a pharmaceutical composition comprising the conjugate and a pharmaceutical carrier;

(4) a method of inducing, in a mammal, antibodies which immunoreact with a polysaccharide;

(5) an antibody which immunoreacts with a polysaccharide, where the antibody is obtained from a mammal, and the production of the antibody by the mammal has been induced by the method of (4);

(6) an antibody, produced by a hybridoma, which immunoreacts with a polysaccharide, where nucleic acid sequences encoding the antibody in the hybridoma are obtained from a mammal in which the production of the antibody has been induced by the method of (4);

(7) a method of inducing passive immunity in a mammal; and

(8) a vaccine composition comprising the conjugate, an adjuvant and a pharmaceutical carrier.

R and R' = independently H or methyl, or together constitute CH₂, CH₂CH₂, or O;

X = CH or N;

Y = N, CH=C, or NH-N; and

B1 and B2 = biomolecules independently selected from polypeptides, carbohydrates, polysaccharides, or nucleic acids, and are optionally attached via a linker.

ACTIVITY - Antimicrobial.

MECHANISM OF ACTION - Vaccine.

USE - The method is useful for coupling a first biomolecule to a second biomolecule. It is also applicable to the immobilization of biomolecules on gel or solid supports. The conjugated products are useful as immunogens, as inoculants for the generation of antibodies and as vaccines. The immobilized biomolecules are also useful for catalysis, separation, components of diagnostic devices and as research tools. The antibodies are useful for preventing, treating or ameliorating infection and diseases caused by microorganisms.

Dwg.0/2

L243 ANSWER 7 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-058995 [06] WPIX

CROSS REFERENCE: 2002-616978 [66]; 2004-355679 [33]

DOC. NO. CPI: C2004-024064

TITLE: Preparing conjugate of biomolecules, useful as vaccines, by cycloaddition reaction between diene-modified and dienophile-modified reactants.

DERWENT CLASS: B04 D16

INVENTOR(S): POZSGAY, V

PATENT ASSIGNEE(S): (POZS-I) POZSGAY V

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002068818	A1	20020606	(200406)*		13

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002068818	A1 Provisional	US 2000-223959P	20000809
		US 2001-927044	20010809

PRIORITY APPLN. INFO: US 2000-223959P 20000809; US
2001-927044 20010809

ED 20040123

AB US2002068818 A UPAB: 20040525

NOVELTY - Method for coupling first and second biomolecules (B1, B2) comprises:

- (1) covalently attaching a diene (D) to (B1);
- (2) covalently attaching a dienophile (DP) to (B2); and
- (3) reacting the products so that a cycloaddition reaction occurs between them.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) method for coupling a biomolecule (B) to a gel or solid support by covalent attachment of (D) to (B) and of DP to the support, then reaction as above;

(2) conjugates (C) of B1 and B2, or of B with a support, prepared by the new methods; and

(3) antibodies (Ab) immunoreactive with a polysaccharide (PS) and prepared by either immunizing a mammal with (C) that includes PS or from a hybridoma that includes nucleic acid sequences obtained from an animal immunized with (C).

ACTIVITY - None given in the source material.

MECHANISM OF ACTION - Vaccine; Passive immunization.

No biological data is given.

USE - The cycloaddition products (C) of B1 and B2 (or similar products comprising a biomolecule and support) are used, where one biomolecule is a polysaccharide (PS), to raise antibodies (Ab) against PS, particularly for vaccination against bacterial or viral infections. Ab can also be used for passive immunization and as analytical or diagnostic reagents; for catalysis and as separation agent.

ADVANTAGE - The method is very simple to perform under mild conditions, since Diels-Alder reaction between D and DP occurs spontaneously in aqueous solution.

Dwg.0/1

L243 ANSWER 8 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 1999-142433 [12] WPIX

DOC. NO. CPI: C1999-041520

TITLE: New saccharide-protein conjugates - are useful in eliciting immune responses, especially against Shigella dysenteriae infection.

DERWENT CLASS: B04 D16

INVENTOR(S): POZSGAY, V; ROBBINS, J B; SCHNEERSON, R

PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES

COUNTRY COUNT: 83

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9903871	A1	19990128	(199912)*	EN	73
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL					
OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE					
GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG					
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG					
US UZ VN YU ZW					
AU 9884072	A	19990210	(199925)		
EP 1000076	A1	20000517	(200028)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9903871	A1	WO 1998-US14698	19980715
AU 9884072	A	AU 1998-84072	19980715
EP 1000076	A1	EP 1998-934584	19980715
		WO 1998-US14698	19980715

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9884072	A Based on	WO 9903871
EP 1000076	A1 Based on	WO 9903871

PRIORITY APPLN. INFO: US 1997-52869P 19970717

ED 19990324

AB WO 9903871 A UPAB: 19990511

The following are claimed:

(A) conjugate molecule, comprising: (a) a saccharide consisting of [3]- alpha -L-Rhap(1-2)- alpha D-Galp-(1-3)- alpha -D-GlcpNAC-(1-3)- alpha -L-Rhap-(1) n subunits (where n is 1-5, ; covalently bound to (b) a protein.

(B) isolated antibody elicited by immunisation using a conjugate molecule as described in (A) in a carrier.

(C) preparation of octasaccharide, dodecasaccharides, hexadecasaccharides or eicosasaccharides which have repeating [3]- alpha -L-Rhap(1-2)- alpha D-Galp-(1-3)- alpha -D-GlcpNAC-(1-3)- alpha -L-Rhap-(1) subunits, comprising: (a) providing monosaccharide derivatives (3), (6), (11) and (16); (b) glycosylating (3) with (11) to give the disaccharide (12); (c) selectively removing the acetyl groups from (12) to give the triol (13); (d) protecting the 4-OH and 6-OH groups of the GlcN unit of (13) by formation of a 4-methoxybenzaldehyde cyclic acetal; (e) preparing the chloroacetic ester of the 5-OH group of the GlcN unit to give the compound (14); (f) removing the cyclic acetal protecting group from the 4-OH and 6-OH groups of the GlcN unit of (14); (g) acetylating the 4-OH and 6-OH groups of the GlcN unit; (h) removing the chloroacetyl protecting group from the 5-OH group of the GlcN unit, to give the disaccharide (15); (i) glycosylating (15) with (16) to give a trisaccharide; (j) reducing the azido group of the trisaccharide to give the compound (17); (k) acylating the amino group of (17) with either a 2,2,2-trichloroethoxycarbonyl group or an acetyl group; (l) removing the 4-methoxybenzyl group from the Gal unit to give the trisaccharide (18); (m) glycosylating (18) with (6) to give the tetrasaccharide (19); (n) hydrolyzing the thioglycoside to give the hemiacetal (20); (o) converting (20) to the trichloroacetimidate (21); (p) glycosylating methyl 6-hydroxyhexanoic acid with (21) to give the glycosylated ester (23); (q) removing the chloroacetyl group of (23) to give the compound (24); (r) glycosylating the resulting product with the compound (21); (s) removing the chloroacetyl group; (t) repeating steps (r) and (s) until the desired number of tetrasaccharide units have been introduced; (u) removing trichloroethoxycarbonyl groups, if present, from the GlcN units; (v) acetylating any resulting amino groups on the GlcN units; (w) hydrolyzing all of the O-acetyl groups; and (x) removing all the benzyl groups. [Ed- please insert the structures of compounds 3, 6 and 11-21, 23 and 24 here] In (12): R1, R2, R3 = Ac; In (13): R1, R2, R3 = H; In (14): R1 + R2 = a 4-methoxybenzaldehyde cyclic acetal; R3 = chloroacetyl; R = SPh (in (19)); OH (in (20)); OC(NH)CCl3 (in (21)); chloroacetyl (in (23)); or H (in (24)); In compounds (18)-(24), the amino is illustrated as being acylated with a 2,2,2-trichloroethoxycarbonyl group; an acetyl group may also be used for acylation, as described in step (k) above.

(D) preparation of an octasaccharide, dodecasaccharide, hexadecasaccharide or eicosasaccharide which has repeating [3]- alpha -L-Rhap(1-2)- alpha -D-Galp-(1-3)- alpha -DGlcpNAc-(1-3)- alpha -L-Rhap-(1) units, comprising: (a) providing the tetrasaccharide (33); (b) hydrolyzing the thioglycoside to give the hemiacetal (34); (c) converting (34) to the trichloroacetimidate (35); (d) glycosylating methyl 6-hydroxyhexanoate with (35) to give the glycosylated ester (36); (e) removing the chloroacetyl group from (36) to give (37); (f) glycosylating the product with (35); (g) removing the chloroacetyl group; (h) repeating steps (f) and (g) until the desired number of tetrasaccharide units have been introduced; (i) hydrolyzing all of the O-acetyl groups; and (j) removing all the benzyl groups. [Ed- please insert the structures of compounds 33-37 here] R = SPh (in (33)); OH (in (34)); OC(NH)CCl₃ (in (35)); chloroacetyl (in (36)); or H (in (37)).

USE - The conjugates may be used for eliciting immunogenic responses in mammals, including responses which provide protection against, or reduce the severity of, bacterial infections. They are especially useful for inducing serum antibodies which have bactericidal activity against *Shigella dysenteriae*, especially *Shigella dysenteriae* type I. They may thus be used to treat shigellosis, and may be used as vaccines to protect against shigellosis. The antibodies described in (B) may also be used in diagnostic tests for shigellosis, and may be used in treatment or prevention of *Shigella dysenteriae* infection. Administration is, e.g., subcutaneous or intramuscular.

ADVANTAGE - The saccharides are structurally related to an antigenic determinant of the O-specific polysaccharide of *Shigella dysenteriae* type I.

Dwg.0/11

L243 ANSWER 9 OF 13 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1992-359094 [44] WPIX
 DOC. NO. NON-CPI: N1992-273708
 DOC. NO. CPI: C1992-159425
 TITLE: Immunoassay for detection of gp. B Streptococcus polysaccharide antigen - comprises insol. carrier, with capture agent and antigen marker that bind to tri rhamnose and mono-rhamnose epitopes of gp. B Streptococcus antigen.
 DERWENT CLASS: B04 D16 J04 S03
 INVENTOR(S): CHALIFOUR, R J; FELDMAN, R; JENNINGS, H J; KASPER, D L; LACROIX, M; MICHON, F; POZSGAY, V; CHALIFOUR, R; JENNINGS, H; KASPER, D
 PATENT ASSIGNEE(S): (BGHM) BRIGHAM & WOMENS HOSPITAL; (HARD) HARVARD COLLEGE; (CANA) NAT RES COUNCIL CANADA; (BIOC-N) BIOCHEM PHARMA INC
 COUNTRY COUNT: 41
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 510902	A1	19921028	(199244)*	EN	44
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE					
WO 9219969	A1	19921112	(199248)	EN	102
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL OA SE					
W: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MN MW					
NL NO PL RO RU SD SE					
AU 9215675	A	19921221	(199311)		
NZ 242433	A	19930526	(199324)		
US 5225331	A	19930706	(199328)		33
ZA 9202975	A	19930825	(199339)		100

JP 06507014 W 19940804 (199435) 28
 AU 664366 B 19951116 (199602)
 EP 510902 B1 19960626 (199630) EN 50
 R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE
 DE 69211762 E 19960801 (199636)
 ES 2093194 T3 19961216 (199707)
 IL 101656 A 19970110 (199715)
 JP 3270043 B2 20020402 (200225) 41

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 510902	A1	EP 1992-303523	19920421
WO 9219969	A1	WO 1992-CA172	19920424
AU 9215675	A	AU 1992-15675	19920424
		WO 1992-CA172	19920424
NZ 242433	A	NZ 1992-242433	19920422
US 5225331	A	US 1991-691310	19910425
ZA 9202975	A	ZA 1992-2975	19920424
JP 06507014	W	JP 1992-507610	19920424
		WO 1992-CA172	19920424
AU 664366	B	AU 1992-15675	19920424
EP 510902	B1	EP 1992-303523	19920421
DE 69211762	E	DE 1992-611762	19920421
		EP 1992-303523	19920421
ES 2093194	T3	EP 1992-303523	19920421
IL 101656	A	IL 1992-101656	19920421
JP 3270043	B2	JP 1992-507610	19920424
		WO 1992-CA172	19920424

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9215675	A Based on	WO 9219969
JP 06507014	W Based on	WO 9219969
AU 664366	B Previous Publ. Based on	AU 9215675
		WO 9219969
DE 69211762	E Based on	EP 510902
ES 2093194	T3 Based on	EP 510902
JP 3270043	B2 Previous Publ. Based on	JP 06507014
		WO 9219969

PRIORITY APPLN. INFO: US 1991-691310 19910425

ED 19930807

AB EP 510902 A UPAB: 19931116

(A) An immunoassay for detection of gp. B streptococcus polysaccharide antigen (GBSPA) in a test sample, comprising contacting the sample with an immobilised antibody (I) and adding a labelled antibody (II) to detect any bound GBSPA, where (I) specifically binds to the mono- or trisaccharide epitope of GBSPA and (II) has affinity for binding to GBSPA; (B) a combination of (I) and (II); (C) an immunogenic conjugate for stimulating anti-GBSPA antibody production, comprising a carbohydrate bound to a carrier, where the carbohydrate is GBSPA or its mono- or trisaccharide epitope; (D) an immunosorbent comprising a mono- or trisaccharide gp. immobilised on an insoluble carrier; (E) an immunosorbent comprising a carrier coated with an antibody against the GBSPA trisaccharide epitope at a coating density of up to 160ng per unit area (sic); (F) an antibody isolated from a sheep polyclonal antibody against GBSPA.

USE/ADVANTAGE - The immunoassay is useful for diagnosis of group B streptococcal infections, especially in expectant mothers prior to childbirth. Conjugates of type (B) may be used for production of polyclonal or monoclonal anti-GBSPA antibodies for use in immunoassays. Immunosorbents of type (C) are useful for affinity purification of anti-GBSPA antibodies. Immunosorbents of type (D) may be used as solid-phase reagents in immunoassays.

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Dwg.2/10

L243 ANSWER 10 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 1

ACCESSION NUMBER: 20032000004 EMBASE
 TITLE: Towards an oligosaccharide-based glycoconjugate vaccine against *Shigella dysenteriae* type 1.
 AUTHOR: Pozsgay V.; Coxon B.; Glaudemans C.P.J.; Schneerson R.; Robbins J.B.
 CORPORATE SOURCE: Dr. V. Pozsgay, Natl. Inst. Child Hlth./Hum. Devmt., National Institute of Health, MSC 2720, 6 Center Dr., Bethesda, MD 20892-2720, United States. vipo@helix.nih.gov
 SOURCE: Synlett, (2003) No. 6, pp. 743-767. .
 Refs: 74
 ISSN: 0936-5214 CODEN: SYNLES
 COUNTRY: Germany
 DOCUMENT TYPE: Journal; General Review
 FILE SEGMENT: 004 Microbiology
 017 Public Health, Social Medicine and Epidemiology
 026 Immunology, Serology and Transplantation
 037 Drug Literature Index
 039 Pharmacy
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 5 Jun 2003
 Last Updated on STN: 5 Jun 2003

ED Entered STN: 5 Jun 2003

Last Updated on STN: 5 Jun 2003

AB This review summarizes the authors' studies in the past decade aimed at developing a synthetic oligosaccharide-based glycoconjugate vaccine to prevent a serious human disease caused by the Gram negative bacterium *Shigella dysenteriae* type 1. Starting from simple monosaccharides, oligosaccharides as large as a 24 monosaccharide-containing linear polymer, were assembled. Under suitable conditions, oligosaccharides containing 4 to 16 hexopyranose residues were covalently attached to an immunogenic protein. The serum response to the synthetic glycoconjugates depends, both on the size of the oligosaccharides, and on the molar ratio of the oligosaccharides to the carrier protein. Also reviewed are studies of the fine specificities of the interaction between oligosaccharides and anti-polysaccharide monoclonal antibodies as well as conformational studies of the synthetic oligosaccharides. 1. Polysaccharide-Based Vaccines. 1.1. Surface Polysaccharides of Bacteria. 1.2. Immunologic Properties of Polysaccharides. 1.3. Polysaccharide-Protein Conjugates. 1.3.1. Methods for the Conjugation of Polysaccharides to Proteins. 1.3.2. Immunogenicity of Polysaccharide-Protein Conjugates. 1.4. Synthetic Oligosaccharides Can be Superior to Natural Polysaccharides for Glycoconjugate Vaccines. 1.5. Potentials of the O-Specific Polysaccharides of *Shigellae* for Vaccine Development. 2. Chemical Synthesis of Oligosaccharides Related to the O-Specific Polysaccharide of *S. dysenteriae* Type 1. 2.1. General Strategy. 2.2. Synthesis of the Monosaccharide Building Blocks. 2.2.1. The L-Rhamnose Moiety. 2.2.2. The D-Galactose Moiety. 2.2.3. The D-Glucosamine Synthons. 2.3. Synthesis of a Complete Repeating Unit. 2.4. Construction of Extended

Oligosaccharides. 2.5. The Lipophilic Protecting Group-Based Approach to Oligosaccharides. 3. Covalent Attachment of the Oligosaccharides to Human Serum Albumin. 3.1. Conjugation through a Secondary Spacer, Using Reductive Amination. 3.2. Conjugation through **Diels-Alder Cycloaddition** Reactions. 4. The Molecular Specificity of the Non-Covalent Binding between O-Specific Polysaccharide-Specific Antibodies and Oligosaccharides Related to the O-Specific Polysaccharide. 5. Conformational Studies. 6. Immunogenicity of the Protein Conjugates of the Synthetic Oligosaccharides in Mice. 7. Conclusions and Future Prospects.

L243 ANSWER 11 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:90222 BIOSIS
DOCUMENT NUMBER: ~~PREV200400094774~~
TITLE: ~~Conjugation of biomolecules using Diels-Alder cycloaddition.~~
AUTHOR(S): ~~Pozsgay, Vince~~ [Inventor, Reprint Author]
CORPORATE SOURCE: Washington, DC, USA
ASSIGNEE: The United States of America as represented by the Department of Health and Human Services
PATENT INFORMATION: US 6673905 20040106
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan 6 2004) Vol. 1278, No. 1.
<http://www.uspto.gov/web/menu/patdata.html>. e-file.
ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Feb 2004
Last Updated on STN: 11 Feb 2004
ED Entered STN: 11 Feb 2004
Last Updated on STN: 11 Feb 2004
AB A method is provided for covalently linking carbohydrates, proteins, nucleic acids, and other biomolecules under neutral conditions, using a **Diels-Alder cycloaddition** reaction. In an example, activated carbon-carbon double bonds were attached to free amino sites of a carrier protein, and a **conjugated** diene was attached to a carbohydrate hapten. Spontaneous coupling of the carbohydrate and the protein components under very mild conditions provided **glycoconjugates** containing up to 37 carbohydrate hapten units per carrier protein molecule. The method is also applicable to the immobilization of biomolecules on gel or solid supports. The **conjugated** products are useful as immunogens and as analytical and diagnostic reagents.

L243 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:575573 BIOSIS
DOCUMENT NUMBER: ~~PREV200100575573~~
TITLE: ~~Synthesis of oligosaccharide-based glycoconjugate vaccines.~~
AUTHOR(S): ~~Pozsgay, Vince~~ [Reprint author]
CORPORATE SOURCE: 6 Center Dr, MSC 2720, Bethesda, MD, 20892-2720, USA
SOURCE: Glycobiology, (October, 2001) Vol. 11, No. 10, pp. 933-934.
print:
Meeting Info.: 6th Annual Conference of the Society for Glycobiology. San Francisco, California, USA. November 14-17, 2001.
ISSN: 0959-6658.
DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Dec 2001
Last Updated on STN: 25 Feb 2002
ED Entered STN: 12 Dec 2001
Last Updated on STN: 25 Feb 2002

L243 ANSWER 13 OF 13 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on
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ACCESSION NUMBER: 2005:859860 SCISEARCH
THE GENUINE ARTICLE: 954VK
TITLE: A new method for conjugation of carbohydrates to
proteins using an aminooxy-thiol heterobifunctional linker
AUTHOR: Kubler-Kielb J; Pozsgay V (Reprint)
CORPORATE SOURCE: NICHHD, NIH, 31 Ctr Dr MSC 2423, Bethesda, MD 20892 USA
(Reprint); NICHHD, NIH, Bethesda, MD 20892 USA
pozsgayv@mail.nih.gov
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF ORGANIC CHEMISTRY, (19 AUG 2005) Vol. 70, No.
17, pp. 6987-6990.
ISSN: 0022-3263.
PUBLISHER: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036
USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 29
ENTRY DATE: Entered STN: 1 Sep 2005
Last Updated on STN: 28 Oct 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ED Entered STN: 1 Sep 2005
Last Updated on STN: 28 Oct 2005

AB [GRAPHICS]

A new, efficient, and mild protocol is presented for the coupling of
saccharides to proteins. First, a heterobifunctional aminooxy-thiol
linker is coupled to the bromoacylated protein to introduce aminooxy
groups through thioether linkages. Condensation of the aminooxylated
protein and aldehyde/keto-derivatized carbohydrates affords covalent
saccharide-protein constructs. Uncoupled saccharide can be recovered in
its original form. The scope of our protocol is exemplified by the
coupling of neutral mono- and tetrasaccharides and a negatively charged
ribitol-phosphate construct to BSA.

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 13:50:42 ON 26 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 19, 2006 (20060519/UP).

=>

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7/7

Considered
06/29/06
MEC

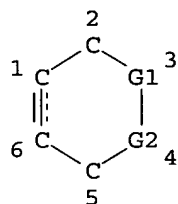
=> d que stat 129

L7 QUE ABB=ON PLU=ON IMMOBIL?
 L8 QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
 L9 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER? OR NANOSPHER?
 L10 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR SPHERIC?)
 L11 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (WALL? OR WELL? OR PLATE?)
 L12 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
 L13 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L14 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L15 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI NUCLEOTID? OR TETRANUCLEOTID?
 L16 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L17 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L18 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L19 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L20 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L21 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L22 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L23 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR (DIELS (W)ALDER?)
 L24 QUE ABB=ON PLU=ON DIENOPHIL?
 L26 91 SEA FILE=HCAPLUS ABB=ON PLU=ON POZSGAY, V?/AU
 L27 72 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND (L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24)
 L28 38 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND (L21 OR L22)
 L29 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (L23 OR L24)

=> d que stat 143

L13 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L14 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L15 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI NUCLEOTID? OR TETRANUCLEOTID?
 L16 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L17 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L18 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L19 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L20 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L21 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L22 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?

X?
 L23 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS(W)ALDER?)
 L24 QUE ABB=ON PLU=ON DIENOPHIL?
 L33 264261 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 (5A) (L13 OR L14 OR L15
 OR L16 OR L17 OR L18 OR L19 OR L20)
 L34 174 SEA FILE=HCAPLUS ABB=ON PLU=ON (L23 OR L24) (L) (L33 OR L21)
 L35 TRANSFER PLU=ON L34 1- RN : 5288 TERMS
 L36 5288 SEA FILE=REGISTRY ABB=ON PLU=ON L35
 L40 STR



VAR G1=C/N
 VAR G2=C/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

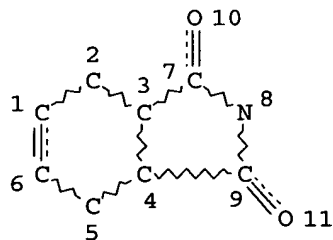
STEREO ATTRIBUTES: NONE
 L43 336 SEA FILE=REGISTRY SUB=L36 SSS FUL L40

100.0% PROCESSED 3051 ITERATIONS
 SEARCH TIME: 00.00.01

336 ANSWERS

=> d geu stat 162
 YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:n

=> d que stat 162
 L60 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L62 169200 SEA FILE=REGISTRY SSS FUL L60

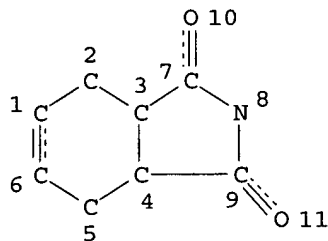
100.0% PROCESSED 215673 ITERATIONS

169200 ANSWERS

SEARCH TIME: 00.00.01

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L56 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

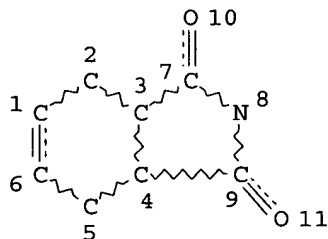
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L60 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L62 169200 SEA FILE=REGISTRY SSS FUL L60

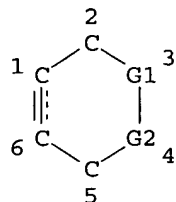
L64 7450 SEA FILE=REGISTRY ABB=ON PLU=ON L62 AND OC5/ES

L66 22513 SEA FILE=REGISTRY SUB=L62 SSS FUL L56

L67 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L64 OR L66

=> d que stat l70

L13 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L14 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? O
 R OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L15 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRI
 NUCLEOTID? OR TETRANUCLEOTID?
 L16 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIG
 ONUCLEOSID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCL
 EOSID?
 L17 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIG
 OSACCHARID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACC
 HARID?
 L18 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA
) (W) (PEPTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L19 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L20 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L21 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L22 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLE
 X?
 L23 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W)ALDER?)
 L24 QUE ABB=ON PLU=ON DIENOPHIL?
 L33 264261 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 (5A) (L13 OR L14 OR L15
 OR L16 OR L17 OR L18 OR L19 OR L20)
 L34 174 SEA FILE=HCAPLUS ABB=ON PLU=ON (L23 OR L24) (L) (L33 OR L21)
 L35 TRANSFER PLU=ON L34 1- RN : 5288 TERMS
 L36 5288 SEA FILE=REGISTRY ABB=ON PLU=ON L35
 L40 STR

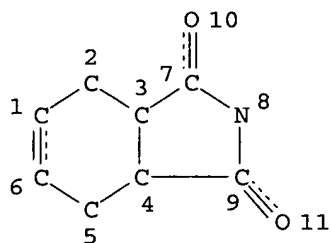


VAR G1=C/N
 VAR G2=C/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

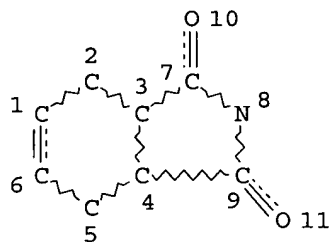
L43 336 SEA FILE=REGISTRY SUB=L36 SSS FUL L40
 L53 20721 SEA FILE=HCAPLUS ABB=ON PLU=ON L43
 L54 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY
 <2001 OR REVIEW/DT
 L55 16464 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L54
 L56 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L60 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L62 169200 SEA FILE=REGISTRY SSS FUL L60
 L64 7450 SEA FILE=REGISTRY ABB=ON PLU=ON L62 AND OC5/ES
 L66 22513 SEA FILE=REGISTRY SUB=L62 SSS FUL L56
 L67 29853 SEA FILE=REGISTRY ABB=ON PLU=ON L64 OR L66
 L68 14197 SEA FILE=HCAPLUS ABB=ON PLU=ON L67
 L69 12024 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 AND L54
 L70 28457 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR L69

=> d his ful

(FILE 'HOME' ENTERED AT 15:25:43 ON 25 MAY 2006)

FILE 'ZCAPLUS' ENTERED AT 15:25:56 ON 25 MAY 2006
 E US2003-692411/APPS

FILE 'HCAPLUS' ENTERED AT 15:26:18 ON 25 MAY 2006
 L1 1 SEA ABB=ON PLU=ON US2003-692411/APPS

SAVE TEMP L1 CEP411HCAAPP/A

FILE 'STNGUIDE' ENTERED AT 15:26:39 ON 25 MAY 2006

FILE 'HCAPLUS' ENTERED AT 15:26:44 ON 25 MAY 2006
D IBIB ED AB IND

FILE 'STNGUIDE' ENTERED AT 15:26:45 ON 25 MAY 2006

L2 FILE 'WPIX' ENTERED AT 15:31:30 ON 25 MAY 2006
1 SEA ABB=ON PLU=ON US2003-692411/APPS
SAVE TEMP L2 CEP411WPIAPP/ CEP411WPIAPP/A
D IALL CODE

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FILE 'REGISTRY' ENTERED AT 15:33:13 ON 25 MAY 2006

L3 FILE 'HCAPLUS' ENTERED AT 15:33:16 ON 25 MAY 2006
TRA PLU=ON L1 1- RN : 31 TERMS

L4 FILE 'REGISTRY' ENTERED AT 15:33:18 ON 25 MAY 2006
31 SEA ABB=ON PLU=ON L3
SAVE TEMP L4 CEP411REGAPP/A
D SCAN

FILE 'STNGUIDE' ENTERED AT 15:33:53 ON 25 MAY 2006

L5 FILE 'LREGISTRY' ENTERED AT 15:36:45 ON 25 MAY 2006
STR

L6 FILE 'REGISTRY' ENTERED AT 15:38:07 ON 25 MAY 2006
50 SEA SSS SAM L5

FILE 'STNGUIDE' ENTERED AT 15:38:26 ON 25 MAY 2006

L7 FILE 'ZCAPLUS' ENTERED AT 15:39:33 ON 25 MAY 2006
L8 QUE ABB=ON PLU=ON IMMOBIL?
L9 QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER?
OR NANOSPHER?
L10 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR
SPHERIC?)
L11 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (WALL?
OR WELL? OR PLATE?)
L12 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
L13 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
L14 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L15 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
ID? OR TETRANUCLEOTID?
L16 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
L17 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
L18 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L*** DEL 210584 S CARBOHYD? OR (CARBO(W)HYDR?)

L19 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
D COST

L20 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L*** DEL QUE BIOCONG? OR (BIO(W)CONJ?)

L21 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)

L22 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?

L23 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
(DIELS(W)ALDER?)

L24 QUE ABB=ON PLU=ON DIENOPHIL?

L25 QUE ABB=ON PLU=ON POZSGAY, V?/AU

FILE 'HCAPLUS' ENTERED AT 15:51:56 ON 25 MAY 2006

L26 91 SEA ABB=ON PLU=ON POZSGAY, V?/AU

L27 72 SEA ABB=ON PLU=ON L26 AND (L7 OR L8 OR L9 OR L10 OR L11 OR
L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR
L21 OR L22 OR L23 OR L24)
D QUE

L28 38 SEA ABB=ON PLU=ON L27 AND (L21 OR L22)

L29 4 SEA ABB=ON PLU=ON L28 AND (L23 OR L24)
SAVE TEMP L29 CEP411HCAINV/A
D SCAN

FILE 'STNGUIDE' ENTERED AT 15:57:26 ON 25 MAY 2006
D QUE

FILE 'REGISTRY' ENTERED AT 15:58:09 ON 25 MAY 2006

FILE 'HCAPLUS' ENTERED AT 15:58:15 ON 25 MAY 2006

L30 TRA PLU=ON L29 1- RN : 70 TERMS

FILE 'REGISTRY' ENTERED AT 15:58:18 ON 25 MAY 2006

L31 70 SEA ABB=ON PLU=ON L30
SAVE TEMP L31 CEP411REGINV/A

L32 39 SEA ABB=ON PLU=ON L31 NOT L4
D SCAN

FILE 'STNGUIDE' ENTERED AT 15:59:06 ON 25 MAY 2006

FILE 'HCAPLUS' ENTERED AT 15:59:41 ON 25 MAY 2006

L33 264261 SEA ABB=ON PLU=ON L22 (5A) (L13 OR L14 OR L15 OR L16 OR L17
OR L18 OR L19 OR L20)

L34 174 SEA ABB=ON PLU=ON (L23 OR L24) (L) (L33 OR L21)
D QUE
SAVE TEMP L34 CEP411HCAT1/A

FILE 'REGISTRY' ENTERED AT 16:03:06 ON 25 MAY 2006

FILE 'HCAPLUS' ENTERED AT 16:03:15 ON 25 MAY 2006

L35 TRA PLU=ON L34 1- RN : 5288 TERMS

FILE 'REGISTRY' ENTERED AT 16:03:25 ON 25 MAY 2006

L36 5288 SEA ABB=ON PLU=ON L35
SAVE TEMP L36 CEP411REGT1/A

FILE 'LREGISTRY' ENTERED AT 16:04:12 ON 25 MAY 2006

L*** DEL STR L5

FILE 'REGISTRY' ENTERED AT 16:04:58 ON 25 MAY 2006

L37 2883 SEA ABB=ON PLU=ON L36 AND (C6/ESS OR N2C4/ESS OR NC5/ESS)

FILE 'STNGUIDE' ENTERED AT 16:06:29 ON 25 MAY 2006
D QUE L5

L38 FILE 'LREGISTRY' ENTERED AT 16:08:57 ON 25 MAY 2006
STR
D QUE L5

L39 FILE 'REGISTRY' ENTERED AT 16:10:22 ON 25 MAY 2006
D QUE L5
50 SEA SUB=L36 SSS SAM L5

L40 FILE 'LREGISTRY' ENTERED AT 16:11:17 ON 25 MAY 2006
STR L5

L41 FILE 'REGISTRY' ENTERED AT 16:12:02 ON 25 MAY 2006
50 SEA SSS SAM L40

L42 21 SEA SUB=L36 SSS SAM L40
D QUE STAT

L43 336 SEA SUB=L36 SSS FUL L40
SAVE TEMP L43 CEP411PSET1/A

FILE 'STNGUIDE' ENTERED AT 16:15:12 ON 25 MAY 2006
D SAVED

L44 FILE 'LREGISTRY' ENTERED AT 16:16:15 ON 25 MAY 2006
STR

L45 FILE 'REGISTRY' ENTERED AT 16:20:26 ON 25 MAY 2006
50 SEA SSS SAM L44

L46 FILE 'LREGISTRY' ENTERED AT 16:20:59 ON 25 MAY 2006
STR L44

L47 FILE 'REGISTRY' ENTERED AT 16:21:32 ON 25 MAY 2006
22 SEA SSS SAM L46

L48 FILE 'LREGISTRY' ENTERED AT 16:22:00 ON 25 MAY 2006
STR L46

L49 FILE 'REGISTRY' ENTERED AT 16:22:55 ON 25 MAY 2006
27 SEA SSS SAM L48

FILE 'STNGUIDE' ENTERED AT 16:23:35 ON 25 MAY 2006

L50 FILE 'LREGISTRY' ENTERED AT 16:24:23 ON 25 MAY 2006
STR L48

L51 FILE 'REGISTRY' ENTERED AT 16:25:36 ON 25 MAY 2006
19 SEA SSS SAM L50

L52 4 SEA SUB=L36 SSS SAM L50
D SCAN
D QUE STAT L43

FILE 'STNGUIDE' ENTERED AT 16:27:13 ON 25 MAY 2006

L53 FILE 'HCAPLUS' ENTERED AT 16:27:22 ON 25 MAY 2006
20721 SEA ABB=ON PLU=ON L43

L54 FILE 'ZCAPLUS' ENTERED AT 16:28:02 ON 25 MAY 2006
QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY<2001

OR REVIEW/DT

L55 FILE 'HCAPLUS' ENTERED AT 16:28:58 ON 25 MAY 2006
16464 SEA ABB=ON PLU=ON L53 AND L54

L56 FILE 'LREGISTRY' ENTERED AT 16:29:26 ON 25 MAY 2006
STR

L57 FILE 'REGISTRY' ENTERED AT 16:30:33 ON 25 MAY 2006
50 SEA SSS SAM L56
D QUE STAT

L58 FILE 'LREGISTRY' ENTERED AT 16:31:52 ON 25 MAY 2006
STR L56

L59 FILE 'REGISTRY' ENTERED AT 16:32:37 ON 25 MAY 2006
50 SEA SSS SAM L58
D QUE STAT

L60 FILE 'LREGISTRY' ENTERED AT 16:33:15 ON 25 MAY 2006
STR L58

L61 FILE 'REGISTRY' ENTERED AT 16:33:42 ON 25 MAY 2006
50 SEA SSS SAM L60
D QUE STAT

L62 169200 SEA SSS FUL L60

FILE 'STNGUIDE' ENTERED AT 16:34:45 ON 25 MAY 2006
D SAVED
DEL SWI790GEN1/A
DEL SWI790MUL1/A
DEL SWI790MUL2/A
DEL SWI790REGSEQ/A
DEL SWI790SEQNA/A

FILE 'REGISTRY' ENTERED AT 16:36:49 ON 25 MAY 2006

FILE 'STNGUIDE' ENTERED AT 16:38:06 ON 25 MAY 2006

L*** FILE 'REGISTRY' ENTERED AT 16:39:02 ON 25 MAY 2006
DEL 46 S L62 AND OC6/ESS

L63 10299 SEA ABB=ON PLU=ON L62 AND OC5/ESS

L64 7450 SEA ABB=ON PLU=ON L62 AND OC5/ES
D QUE L56

L65 50 SEA SUB=L62 SSS SAM L56
D QUE STAT

L66 22513 SEA SUB=L62 SSS FUL L56

L67 29853 SEA ABB=ON PLU=ON L64 OR L66
SAVE TEMP L67 CEP411PSET3/A

FILE 'STNGUIDE' ENTERED AT 16:43:07 ON 25 MAY 2006
D SAVED
D SAVED

L68 FILE 'HCAPLUS' ENTERED AT 16:45:24 ON 25 MAY 2006
14197 SEA ABB=ON PLU=ON L67

L69 12024 SEA ABB=ON PLU=ON L68 AND L54

L70 28457 SEA ABB=ON PLU=ON L55 OR L69
SAVE TEMP L70 CEP411HCAP1/A
D QUE

FILE 'STNGUIDE' ENTERED AT 16:46:41 ON 25 MAY 2006

D SAVED
D QUE STAT L29
D QUE STAT L43
D QUE STAT L62
D QUE STAT L67
D QUE STAT L70

FILE HOME

FILE ZCAPLUS

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FILE COVERS 1907 - 25 May 2006 VOL 144 ISS 22
FILE LAST UPDATED: 24 May 2006 (20060524/ED)

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FILE HCAPLUS

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FILE COVERS 1907 - 25 May 2006 VOL 144 ISS 22
FILE LAST UPDATED: 24 May 2006 (20060524/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 19, 2006 (20060519/UP).

FILE WPIX

FILE LAST UPDATED: 23 MAY 2006 <20060523/UP>
MOST RECENT DERWENT UPDATE: 200633 <200633/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <

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>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf> <<<

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 24 MAY 2006 HIGHEST RN 885512-85-6

DICTIONARY FILE UPDATES: 24 MAY 2006 HIGHEST RN 885512-85-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.


REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

 > d his'ful

(FILE 'HOME' ENTERED AT 11:57:10 ON 26 MAY 2006)

FILE 'HCAPLUS' ENTERED AT 11:57:19 ON 26 MAY 2006
ACT CEP411CEPHCAAPP/A CEP411HCAAPP/A

L1 1 SEA ABB=ON PLU=ON US2003-692411/APPS

FILE 'WPIX' ENTERED AT 11:57:42 ON 26 MAY 2006
ACT CEP411WPIAPP/A

L2 1 SEA ABB=ON PLU=ON US2003-692411/APPS

FILE 'REGISTRY' ENTERED AT 11:57:55 ON 26 MAY 2006
ACT CEP411REGAPP/A

L3 (1) SEA ABB=ON PLU=ON US2003-692411/APPS
L4 SEL PLU=ON L3 1- RN : 31 TERMS
L5 31 SEA ABB=ON PLU=ON L4

ACT CEP411REGINV/A

L6 QUE ABB=ON PLU=ON IMMOBIL?
L7 QUE ABB=ON PLU=ON SOLID (3A) SUPPORT?
L8 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER?
OR NANOSPHER?
L9 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR
SPHERIC?)
L10 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO (W) TITER)) (4A) (WALL?
OR WELL? OR PLATE?)
L11 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
L12 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO (W) MOLECULE?)
L13 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L14 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
ID? OR TETRANUCLEOTID?
L15 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
L16 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
L17 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L18 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO (W) HYDR?)
L19 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L20 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO (W) CONJ?)
L21 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
L22 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO (W) ADDITION?) OR
(DIELS (W) ALDER?)
L23 QUE ABB=ON PLU=ON DIENOPHIL?
L24 (91) SEA ABB=ON PLU=ON POZSGAY, V?/AU
L25 (72) SEA ABB=ON PLU=ON L24 AND (L6 OR L7 OR L8 OR L9 OR L10 OR
L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR
L20 OR L21 OR L22 OR L23)
L26 (38) SEA ABB=ON PLU=ON L25 AND (L20 OR L21)
L27 (4) SEA ABB=ON PLU=ON L26 AND (L22 OR L23)
L28 SEL PLU=ON L27 1- RN : 70 TERMS
L29 70 SEA ABB=ON PLU=ON L28

FILE 'STNGUIDE' ENTERED AT 11:58:13 ON 26 MAY 2006

FILE 'ZCAPLUS' ENTERED AT 12:00:29 ON 26 MAY 2006

L30 QUE ABB=ON PLU=ON POZSGAY, V?/AU
L31 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY<2001
OR REVIEW/DT

FILE 'HCAPLUS' ENTERED AT 12:01:39 ON 26 MAY 2006

ACT CEP411HCAINV/A

L32 QUE ABB=ON PLU=ON IMMOBIL?
 L33 QUE ABB=ON PLU=ON SOLID(3A)SUPPORT?
 L34 QUE ABB=ON PLU=ON GLASS OR SILICA OR GOLD OR BEAD? OR
 MICROBEAD? OR NANOBEAD? OR SPHERE? OR SPHERIC? OR MICROSPHER?
 OR NANOSPHER?
 L35 QUE ABB=ON PLU=ON (MICRO OR NANO) (W) (BEAD? OR SPERE? OR
 SPHERIC?)
 L36 QUE ABB=ON PLU=ON (MICROTITER OR (MICRO(W)TITER)) (4A) (WALL?
 OR WELL? OR PLATE?)
 L37 QUE ABB=ON PLU=ON GEL OR HYDROGEL OR AGAROS?
 L38 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L39 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
 OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L40 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
 ID? OR TETRANUCLEOTID?
 L41 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
 SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L42 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
 RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L43 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
 PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L44 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L45 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L46 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L47 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L48 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)
 L49 QUE ABB=ON PLU=ON DIENOPHIL?
 L50 (91) SEA ABB=ON PLU=ON POZSGAY, V?/AU
 L51 (72) SEA ABB=ON PLU=ON L50 AND (L32 OR L33 OR L34 OR L35 OR L36
 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45
 OR L46 OR L47 OR L48 OR L49)
 L52 (38) SEA ABB=ON PLU=ON L51 AND (L46 OR L47)
 L53 4 SEA ABB=ON PLU=ON L52 AND (L48 OR L49)

ACT CEP411HCAT1/A

L54 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L55 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
 OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L56 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
 ID? OR TETRANUCLEOTID?
 L57 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
 SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L58 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
 RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L59 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
 PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L60 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L61 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L62 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L63 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L64 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)

L65 QUE ABB=ON PLU=ON DIENOPHIL?
 L66 (264261)SEA ABB=ON PLU=ON L63 (5A) (L54 OR L55 OR L56 OR L57 OR L58
 OR L59 OR L60 OR L61)
 L67 174 SEA ABB=ON PLU=ON (L64 OR L65) (L) (L66 OR L62)

FILE 'REGISTRY' ENTERED AT 12:02:07 ON 26 MAY 2006

ACT CEP411PSET1/A

L68 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L69 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
 OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L70 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
 ID? OR TETRANUCLEOTID?
 L71 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
 SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L72 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
 RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L73 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
 PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L74 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L75 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L76 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L77 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L78 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)
 L79 QUE ABB=ON PLU=ON DIENOPHIL?
 L80 (264261)SEA ABB=ON PLU=ON L77 (5A) (L68 OR L69 OR L70 OR L71 OR L72
 OR L73 OR L74 OR L75)
 L81 (174)SEA ABB=ON PLU=ON (L78 OR L79) (L) (L80 OR L76)
 L82 SEL PLU=ON L81 1- RN : 5288 TERMS
 L83 (5288)SEA ABB=ON PLU=ON L82
 L84 STR
 L85 336 SEA SUB=L83 SSS FUL L84

ACT CEP411REGT1/A

L86 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W)MOLECULE?)
 L87 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
 OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
 L88 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
 POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
 ID? OR TETRANUCLEOTID?
 L89 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
 SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
 L90 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
 RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
 L91 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
 PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
 L92 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W)HYDR?)
 L93 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
 L94 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W)CONJ?)
 L95 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
 L96 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W)ADDITION?) OR
 (DIELS (W) ALDER?)
 L97 QUE ABB=ON PLU=ON DIENOPHIL?
 L98 (264261)SEA ABB=ON PLU=ON L95 (5A) (L86 OR L87 OR L88 OR L89 OR L90
 OR L91 OR L92 OR L93)
 L99 (174)SEA ABB=ON PLU=ON (L96 OR L97) (L) (L98 OR L94)

L100 SEL PLU=ON L99 1- RN : 5288 TERMS
L101 5288 SEA ABB=ON PLU=ON L100

ACT CEP411PSET3/A

L102 STR
L103 STR
L104 (169200) SEA FILE=REGISTRY SSS FUL L103
L105 (7450) SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND OC5/ES
L106 (22513) SEA FILE=REGISTRY SUB=L104 SSS FUL L102
L107 29853 SEA ABB=ON PLU=ON L105 OR L106

FILE 'HCAPLUS' ENTERED AT 12:03:03 ON 26 MAY 2006

ACT CEP411HCAP1/A

L108 QUE ABB=ON PLU=ON BIOMOLECULE? OR (BIO(W) MOLECULE?)
L109 QUE ABB=ON PLU=ON PROTEIN? OR PEPTID? OR POLYPEPTID? OR
OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID?
L110 QUE ABB=ON PLU=ON (NUCLEIC (W) ACID?) OR NUCLEOTID? OR
POLYNUCLEOTID? OR OLIGONUCLEOTID? OR DINUCLEOTID? OR TRINUCLEOT
ID? OR TETRANUCLEOTID?
L111 QUE ABB=ON PLU=ON NUCLEOSID? OR POLYNUCLEOSID? OR OLIGONUCLEO
SID? OR DINUCLEOSID? OR TRINUCLEOSID? OR TETRANUCLEOSID?
L112 QUE ABB=ON PLU=ON SACCHARID? OR POLYSACCHARID? OR OLIGOSACCHA
RID? OR DISACCHARID? OR TRISACCHARID? OR TETRASACCHARID?
L113 QUE ABB=ON PLU=ON (POLY OR OLIGO OR DI OR TRI OR TETRA) (W) (PE
PTID? OR NUCLOTID? OR NUCLEOSID? OR SACCHARID?)
L114 QUE ABB=ON PLU=ON CARBOHYD? OR (CARBO(W) HYDR?)
L115 QUE ABB=ON PLU=ON SUGAR? OR DEXTRAN? OR ALBUMIN?
L116 QUE ABB=ON PLU=ON BIOCONJ? OR (BIO(W) CONJ?)
L117 QUE ABB=ON PLU=ON CONJUG? OR LINK? OR COUPL? OR COMPLEX?
L118 QUE ABB=ON PLU=ON CYCLOADD? OR (CYCLO(W) ADDITION?) OR
(DIELS (W) ALDER?)
L119 QUE ABB=ON PLU=ON DIENOPHIL?
L120 (264261) SEA FILE=HCAPLUS ABB=ON PLU=ON L117 (5A) (L108 OR L109 OR L11
L121 (174) SEA FILE=HCAPLUS ABB=ON PLU=ON (L118 OR L119) (L) (L120 OR L116
L122 SEL PLU=ON L121 1- RN : 5288 TERMS
L123 (5288) SEA FILE=REGISTRY ABB=ON PLU=ON L122
L124 STR
L125 (336) SEA FILE=REGISTRY SUB=L123 SSS FUL L124
L126 (20721) SEA FILE=HCAPLUS ABB=ON PLU=ON L125
L127 QUE ABB=ON PLU=ON AY<2001 OR PY<2001 OR PRY<2001 OR MY<2001
OR REVIEW/DT
L128 (16464) SEA FILE=HCAPLUS ABB=ON PLU=ON L126 AND L127
L129 STR
L130 STR
L131 (169200) SEA FILE=REGISTRY SSS FUL L130
L132 (7450) SEA FILE=REGISTRY ABB=ON PLU=ON L131 AND OC5/ES
L133 (22513) SEA FILE=REGISTRY SUB=L131 SSS FUL L129
L134 (29853) SEA FILE=REGISTRY ABB=ON PLU=ON L132 OR L133
L135 (14197) SEA FILE=HCAPLUS ABB=ON PLU=ON L134
L136 (12024) SEA FILE=HCAPLUS ABB=ON PLU=ON L135 AND L127
L137 28457 SEA ABB=ON PLU=ON L128 OR L136

FILE 'STNGUIDE' ENTERED AT 12:03:30 ON 26 MAY 2006

FILE 'ZCAPLUS' ENTERED AT 12:04:50 ON 26 MAY 2006

L138 QUE ABB=ON PLU=ON PROTEINS+PFT,OLD/CT

L139 QUE ABB=ON PLU=ON PEPTIDES+PFT,OLD/CT
 L140 QUE ABB=ON PLU=ON "PEPTIDES, REACTIONS"+PFT,OLD,NT/CT
 L141 QUE ABB=ON PLU=ON "PROTEINS, REACTIONS"+PFT,OLD,NT/CT
 E NUCLEIC ACIDS/CT
 L142 QUE ABB=ON PLU=ON "NUCLEIC ACIDS"+PFT,OLD/CT
 L143 QUE ABB=ON PLU=ON "NUCLEIC ACIDS, REACTIONS"+PFT,OLD,NT/CT
 L144 QUE ABB=ON PLU=ON "ANTIBODIES AND IMMUNOGLOBULINS"+PFT,OLD,NT
 /CT
 L145 QUE ABB=ON PLU=ON HEMOCYANINS+PFT,OLD,NT/CT
 L146 QUE ABB=ON PLU=ON ALBUMINS+PFT,OLD,NT/CT
 L147 QUE ABB=ON PLU=ON "ALBUMINS, BIOLOGICAL STUDIES"+PFT,OLD,NT/C
 T
 L148 QUE ABB=ON PLU=ON GLOBULINS+PFT,OLD,NT/CT
 L149 QUE ABB=ON PLU=ON "GLOBULINS, BIOLOGICAL STUDIES"+PFT,OLD,NT/
 CT
 L150 QUE ABB=ON PLU=ON "DIELS-ALDER REACTION"+PFT,OLD,NT/CT
 L151 QUE ABB=ON PLU=ON "DIELS-ALDER REACTION KINETICS"+PFT,OLD,NT/
 CT
 E DIELS-ALDER/CT
 E E22+ALL
 E DIENOPHILE/CT
 E E39+ALL
 L152 QUE ABB=ON PLU=ON DIENOPHILES+PFT,OLD,NT/CT
 D HIS10
 L153 QUE ABB=ON PLU=ON "IMMOBILIZATION, MOLECULAR OR CELLULAR"+PFT
 ,OLD,NT/CT
 L154 QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD/CT
 D QUE L20
 D QUE L21
 E CARBOHYDRATES/CT
 L155 QUE ABB=ON PLU=ON CARBOHYDRATES+PFT,OLD/CT
 E SUGARS/CT
 E E64+ALL
 L156 QUE ABB=ON PLU=ON SUGARS+PFT,OLD/CT
 E SACCHARIDES/CT
 E E78+ALL
 L157 QUE ABB=ON PLU=ON SACCHARIDES+PFT,OLD,NT/CT
 L158 QUE ABB=ON PLU=ON MONOSACCHARIDES+PFT,OLD,NT/CT
 L159 QUE ABB=ON PLU=ON POLYSACCHARIDES+PFT,OLD,NT/CT
 L160 QUE ABB=ON PLU=ON OLIGOSACCHARIDES+PFT,OLD,NT/CT
 E DEXTRAN/CT
 E E95+ALL
 L161 QUE ABB=ON PLU=ON DEXTRAN+PFT,OLD,NT/CT

FILE 'HCAPLUS' ENTERED AT 12:13:22 ON 26 MAY 2006

L162 421 SEA ABB=ON PLU=ON L137 AND (((L138 OR L139 OR L140 OR L141
 OR L142 OR L143 OR L144 OR L145 OR L146 OR L147 OR L148 OR
 L149)) (L) L21)
 L163 253 SEA ABB=ON PLU=ON L137 AND (((L155 OR L156 OR L157 OR L158
 OR L159 OR L160 OR L161)) (L) L21)
 D QUE

FILE 'ZCAPLUS' ENTERED AT 12:16:44 ON 26 MAY 2006

L164 QUE ABB=ON PLU=ON ?CONJ? OR ?COUPL? OR ?LINK?

FILE 'HCAPLUS' ENTERED AT 12:17:08 ON 26 MAY 2006

L165 296 SEA ABB=ON PLU=ON L137 AND (((L138 OR L139 OR L140 OR L141
 OR L142 OR L143 OR L144 OR L145 OR L146 OR L147 OR L148 OR
 L149)) (L) L164)
 L166 198 SEA ABB=ON PLU=ON L137 AND (((L155 OR L156 OR L157 OR L158

OR L159 OR L160 OR L161)) (L) L164)
L167 1284 SEA ABB=ON PLU=ON (L85 OR L107) (L) (L20 OR L164)
L168 320 SEA ABB=ON PLU=ON (L165 OR L166) AND L167
L169 96 SEA ABB=ON PLU=ON L168 AND (L22 OR L23 OR (L150 OR L151 OR
L152 OR L153 OR L154))
L170 3 SEA ABB=ON PLU=ON L168 AND (L22 OR L23 OR (L150 OR L151 OR
L152))
L171 96 SEA ABB=ON PLU=ON (L169 OR L170)
L172 82 SEA ABB=ON PLU=ON L171 AND (L7 OR L8 OR L9 OR L10 OR L11 OR
L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19)
L173 0 SEA ABB=ON PLU=ON L172 AND (BIOCONJ?/OBI OR (BIO/OBI(W) CONJ?/
OBI))
L174 78 SEA ABB=ON PLU=ON L172 AND CONJUG?/OBI

FILE 'STNGUIDE' ENTERED AT 12:29:35 ON 26 MAY 2006

FILE 'REGISTRY' ENTERED AT 12:30:23 ON 26 MAY 2006

L175 1 SEA ABB=ON PLU=ON (L85 OR L107) AND ?RUBICIN?/CNS
D SCAN
L176 0 SEA ABB=ON PLU=ON (L85 OR L107) AND ?RUBICIN?/CN

FILE 'STNGUIDE' ENTERED AT 12:31:56 ON 26 MAY 2006

FILE 'HCAPLUS' ENTERED AT 12:32:13 ON 26 MAY 2006

FILE 'REGISTRY' ENTERED AT 12:32:38 ON 26 MAY 2006
L177 33 SEA ABB=ON PLU=ON (L85 OR L107) AND ?MYCIN?/CNS
D SCAN

FILE 'STNGUIDE' ENTERED AT 12:33:23 ON 26 MAY 2006

FILE 'HCAPLUS' ENTERED AT 12:35:50 ON 26 MAY 2006

L178 3 SEA ABB=ON PLU=ON L174 AND L67
D SCAN
L179 1 SEA ABB=ON PLU=ON L178 NOT L29
D SCAN
SAVE TEMP L174 CEP411HCA1B/A

FILE 'STNGUIDE' ENTERED AT 12:37:35 ON 26 MAY 2006
D SAVED

FILE 'HCAPLUS' ENTERED AT 12:38:54 ON 26 MAY 2006

L*** DEL 1007 S L34 AND L137
L180 19 SEA ABB=ON PLU=ON L67 AND L137
L181 94 SEA ABB=ON PLU=ON L180 OR L174
L182 94 SEA ABB=ON PLU=ON L181 AND L31
SAVE TEMP L182 CEP411HCA1B/A

FILE 'STNGUIDE' ENTERED AT 12:41:15 ON 26 MAY 2006

FILE 'REGISTRY' ENTERED AT 12:41:50 ON 26 MAY 2006

L183 22 SEA ABB=ON PLU=ON (L85 OR L107) AND MEDLINE/LC
L184 12 SEA ABB=ON PLU=ON (L85 OR L107) AND EMBASE/LC
L185 51 SEA ABB=ON PLU=ON (L85 OR L107) AND BIOSIS/LC
L186 11 SEA ABB=ON PLU=ON (L85 OR L107) AND BIOTECHNO/LC
L187 0 SEA ABB=ON PLU=ON (L85 OR L107) AND BIOTECHDS/LC
L188 10 SEA ABB=ON PLU=ON (L85 OR L107) AND DRUGU/LC

FILE 'STNGUIDE' ENTERED AT 12:43:47 ON 26 MAY 2006

FILE 'MEDLINE' ENTERED AT 12:45:29 ON 26 MAY 2006

L189 31 SEA ABB=ON PLU=ON POZSGAY, V?/AU
L190 2 SEA ABB=ON PLU=ON L189 AND (L20 OR L22 OR L23)
SAVE TEMP L190 CEP411MEDINV/A
D TRI 1-2
L191 QUE ABB=ON PLU=ON GLYCOCONJUGATES+PFT,OLD,NT/CT
L192 QUE ABB=ON PLU=ON CARBOHYDRATES+PFT,OLD,NT/CT
L193 8017 SEA ABB=ON PLU=ON L183
L194 6456 SEA ABB=ON PLU=ON L193 AND (L191 OR L192)
L195 6 SEA ABB=ON PLU=ON L194 AND (L22 OR L23)
D TRI 1-6
D QUE
L196 5655 SEA ABB=ON PLU=ON L194 AND L31
L197 5 SEA ABB=ON PLU=ON L196 AND (L22 OR L23)
L198 652 SEA ABB=ON PLU=ON L196 AND (L20 OR L21)
E DRUG CARRIERS/CT
L199 53385 SEA ABB=ON PLU=ON "DRUG CARRIERS"+PFT,OLD,NT/CT
E DRUG DELIVERY/CT
E E128+ALL
L200 QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD,NT/CT
L201 48 SEA ABB=ON PLU=ON L198 AND (L199 OR L200)
D TRI 40-45

FILE 'REGISTRY' ENTERED AT 12:51:43 ON 26 MAY 2006

E DAUNORUBICIN/CN
L202 1 SEA ABB=ON PLU=ON DAUNORUBICIN/CN
D SCAN

FILE 'MEDLINE' ENTERED AT 12:52:11 ON 26 MAY 2006

L203 21 SEA ABB=ON PLU=ON L201 AND (L6 OR L7 OR L8 OR L9 OR L10 OR
L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19)
L204 138 SEA ABB=ON PLU=ON (L22 OR L23) AND (L20 OR ?CONJUG?)
L205 27 SEA ABB=ON PLU=ON L204 AND L31
L206 53 SEA ABB=ON PLU=ON L197 OR L203 OR L205
L207 53 SEA ABB=ON PLU=ON L206 AND L31
D TRI 50-53
L208 27 SEA ABB=ON PLU=ON L207 AND L183
D TRI 20-27
SAVE TEMP L208 CEP411MED1B/A

FILE 'EMBASE' ENTERED AT 12:56:15 ON 26 MAY 2006

L209 41 SEA ABB=ON PLU=ON POZSGAY, V?/AU
L210 1 SEA ABB=ON PLU=ON L209 AND (L20 OR L22 OR L23)
SAVE TEMP L210 CEP411EMB1B/A
D TRI
L211 10 SEA ABB=ON PLU=ON (L22 OR L23) AND L184
D TRI 5-10
L212 3247 SEA ABB=ON PLU=ON L184 AND (L20 OR L21)
L213 556 SEA ABB=ON PLU=ON L212 AND ?CONJUG?
L214 293 SEA ABB=ON PLU=ON L213 AND (L6 OR L7 OR L8 OR L9 OR L10 OR
L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19)
L215 201 SEA ABB=ON PLU=ON (L211 OR L214) AND L31
L216 15 SEA ABB=ON PLU=ON L215 AND (L22 OR L23 OR ?DIENE?)
D QUE
D TRI 8-12
SAVE TEMP L216 CEP411EMB1B/A

FILE 'STNGUIDE' ENTERED AT 13:01:07 ON 26 MAY 2006

D SAVED

FILE 'WPIX' ENTERED AT 13:01:36 ON 26 MAY 2006

L217 6 SEA ABB=ON PLU=ON POZSGAY, V?/AU
SAVE TEMP L217 CEP411WPIINV/A
SELECT L217 1- DCRE

L218 23 SEA ABB=ON PLU=ON (105730-0-0-0/DCSE OR 184611-0-0-0/DCSE OR
184614-0-0-0/DCSE OR 184616-0-0-0/DCSE OR 576844-0-0-0/DCSE OR
86886-0-0-0/DCSE OR 93605-0-0-0/DCSE OR 98661-0-0-0/DCSE OR
184587-0-0-0/DCSE OR 184592-0-0-0/DCSE OR 576843-0-0-0/DCSE OR
102901-0-0-0/DCSE OR 108585-0-0-0/DCSE OR 109583-0-0-0/DCSE OR
199633-0-0-0/DCSE OR 297125-0-0-0/DCSE OR 66683-0-0-0/DCSE OR
8349-1-0-0/DCSE OR 92818-0-0-0/DCSE OR 93473-0-0-0/DCSE OR
95867-0-0-0/DCSE OR 96808-0-0-0/DCSE OR 978360-1-0-0/DCSE)
D SCAN

L219 1 SEA ABB=ON PLU=ON L218 AND (C49 H86 O7)/MF
SELECT L217 1- DCN

L220 24 SEA ABB=ON PLU=ON (RA00H1/SDCN OR RA00H3/SDCN OR RA00NS/SDCN
OR RA012P/SDCN OR RA0121/SDCN OR RA7SVO/SDCN OR R24039/SDCN OR
RA03W4/SDCN OR RA0120/SDCN OR RA7SVN/SDCN OR RA00C8/SDCN OR
RA0KVI/SDCN OR R01857/SDCN OR R16573/SDCN OR 0117-09001/SDCN
OR 0117-09002/SDCN OR 0117-09003/SDCN OR 0130-36501/SDCN OR
0130-36502/SDCN OR 0130-36503/SDCN OR 0130-36504/SDCN OR
0142-85002/SDCN OR RAFTSB/SDCN OR RA0BDE/SDCN OR RA0DRH/SDCN
OR RA0QCH/SDCN OR RA0XP/SDCN OR RA1FGT/SDCN OR RA1FGU/SDCN OR
RA1JNI/SDCN OR RA20EO/SDCN OR 0142-85001/SDCN OR R00148/SDCN
OR 9244-09701/SDCN OR 9244-09702/SDCN)
D SCAN

L221 2 SEA ABB=ON PLU=ON (L218 OR L220) AND ((C49 H86 O7)/MF OR (C6
H10 O)/MF)

L222 2 SEA ABB=ON PLU=ON (L218 OR L220) AND ((C49 H86 O7)/MF OR (C6
H10 O)/MF)
D SCAN L222
SELECT L222 1- SDCN

L223 6 SEA ABB=ON PLU=ON (RAFTSB/DCN OR RA0SXP/DCN)
SELECT L222 1- DCSE

L224 6 SEA ABB=ON PLU=ON (66683-0-0-0/KW OR 978360-1-0-0/KW)

L225 6 SEA ABB=ON PLU=ON L223 OR L224

L226 15107 SEA ABB=ON PLU=ON ((BIOCONJ?/BIX OR (BIO/BIX(W)CONJ?/BIX))
OR ?CONJUG?/BIX) (15A) ((CYCLOADD?/BIX OR (CYCLO/BIX(W)ADDITION?
BIX) OR (DIELS/BIX(W)ALDER?/BIX)) OR (DIENOPHIL?/BIX) OR
?DIENE?/BIX)

L227 QUE ABB=ON PLU=ON D05-H10/MC

L228 12 SEA ABB=ON PLU=ON (L225 OR L226) AND L227
D TRI 1-12

L229 33 SEA ABB=ON PLU=ON L227 AND (L225 OR (CYCLOADD?/BIX OR
(CYCLO/BIX(W)ADDITION?/BIX) OR (DIELS/BIX(W)ALDER?/BIX)) OR
(DIENOPHIL?/BIX))

L230 38 SEA ABB=ON PLU=ON (L228 OR L229)

L231 15 SEA ABB=ON PLU=ON L230 AND (AY<2001 OR PY<2001 OR PRY<2001)
SAVE TEMP L231 CEP411WPI1B/A

FILE 'STNGUIDE' ENTERED AT 13:27:20 ON 26 MAY 2006

D SAVED

FILE 'BIOSIS, BIOTECHNO, DRUGU' ENTERED AT 13:27:57 ON 26 MAY 2006

L232 38750 SEA ABB=ON PLU=ON L185 OR L186 OR L188
D QUE

L233 600 SEA ABB=ON PLU=ON L232 AND (?CONJUG? OR BIOCONJUG?)

L234 51 SEA ABB=ON PLU=ON L233 AND (L22 OR L23 OR ?DIENE?)

L235 38 SEA ABB=ON PLU=ON L234 AND L31

L236 38 SEA ABB=ON PLU=ON L235 AND (L6 OR L7 OR L8 OR L9 OR L10 OR

L237 L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR
L20 OR L21)
2 SEA ABB=ON PLU=ON L236 AND (L22 OR L23)
D SCAN
D QUE
SAVE TEMP L237 CEP411MUL1B/A

FILE 'STNGUIDE' ENTERED AT 13:33:40 ON 26 MAY 2006
D SAVED

FILE 'BIOSIS, PASCAL, JICST-EPLUS, CABA, LIFESCI, BIOENG, BIOTECHNO,
BIOTECHDS, VETU, VETB, DRUGU, DRUGB, SCISEARCH, CONF, CONFSCI, DISSABS'
ENTERED AT 13:34:31 ON 26 MAY 2006
L238 222 SEA ABB=ON PLU=ON L30
L239 48 SEA ABB=ON PLU=ON L238 AND (CONJUG? OR BIOCONJUG? OR
?CONJUG? OR L22 OR L23 OR ?DIENE?)
L240 48 SEA ABB=ON PLU=ON L238 AND (CONJUG? OR BIOCONJUG? OR
?CONJUG? OR L22 OR L23)
L241 8 SEA ABB=ON PLU=ON L240 AND (L22 OR L23)
D SAVED
SAVE TEMP L241 CEP411MULINV/A
D SAVED

FILE 'STNGUIDE' ENTERED AT 13:38:02 ON 26 MAY 2006
D QUE STAT L85
D QUE STAT L107
D QUE STAT L182
D QUE NOS L208
D QUE NOS L216
D QUE L231
D QUE NOS L237

FILE 'HCAPLUS, WPIX, MEDLINE, EMBASE, BIOSIS' ENTERED AT 13:40:20 ON 26
MAY 2006
L242 145 DUP REM L182 L231 L208 L216 L237 (8 DUPLICATES REMOVED)
ANSWERS '1-94' FROM FILE HCAPLUS
ANSWERS '95-107' FROM FILE WPIX
ANSWERS '108-131' FROM FILE MEDLINE
ANSWERS '132-144' FROM FILE EMBASE
ANSWER '145' FROM FILE BIOSIS

FILE 'STNGUIDE' ENTERED AT 13:40:29 ON 26 MAY 2006

FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' ENTERED AT 13:40:56 ON 26
MAY 2006
D IBIB ED AB HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 13:40:58 ON 26 MAY 2006

FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' ENTERED AT 13:41:49 ON 26
MAY 2006
D IBIB ED AB HITIND HITSTR 2-94

FILE 'STNGUIDE' ENTERED AT 13:45:42 ON 26 MAY 2006

FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' ENTERED AT 13:46:26 ON 26
MAY 2006
D IALL ABEQ TECH ABEX 95-107

FILE 'STNGUIDE' ENTERED AT 13:46:32 ON 26 MAY 2006

FILE 'HCAPLUS, MEDLINE, EMBASE, WPIX, BIOSIS' ENTERED AT 13:47:42 ON 26 MAY 2006

D IBIB ED AB HITIND 108-145

FILE 'STNGUIDE' ENTERED AT 13:47:46 ON 26 MAY 2006

D QUE STAT L53
D QUE STAT L90
D QUE STAT L210
D QUE STAT L190
D QUE STAT L217
D QUE STAT L241

FILE 'HCAPLUS, WPIX, MEDLINE, EMBASE, BIOSIS, BIOTECHNO, BIOTECHDS, SCISEARCH' ENTERED AT 13:50:00 ON 26 MAY 2006

L243 13 DUP REM L53 L217 L190 L210 L241 (8 DUPLICATES REMOVED)
ANSWERS '1-4' FROM FILE HCAPLUS
ANSWERS '5-9' FROM FILE WPIX
ANSWER '10' FROM FILE EMBASE
ANSWERS '11-12' FROM FILE BIOSIS
ANSWER '13' FROM FILE SCISEARCH

FILE 'STNGUIDE' ENTERED AT 13:50:07 ON 26 MAY 2006

FILE 'HCAPLUS, EMBASE, WPIX, BIOSIS, SCISEARCH' ENTERED AT 13:50:20 ON 26 MAY 2006

D IBIB ED AB 1-13

FILE 'STNGUIDE' ENTERED AT 13:50:23 ON 26 MAY 2006

FILE 'STNGUIDE' ENTERED AT 13:50:42 ON 26 MAY 2006

FILE HOME

FILE HCAPLUS

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FILE COVERS 1907 - 26 May 2006 VOL 144 ISS 23
FILE LAST UPDATED: 25 May 2006 (20060525/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE WPIX

FILE LAST UPDATED: 23 MAY 2006 <20060523/UP>
MOST RECENT DERWENT UPDATE: 200633 <200633/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stdatabases/details/ipc_reform.html and
<http://scientific.thomson.com/media/scpdf/ipcrdwpf.pdf> <<<

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 25 MAY 2006 HIGHEST RN 885654-58-0
DICTIONARY FILE UPDATES: 25 MAY 2006 HIGHEST RN 885654-58-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 19, 2006 (20060519/UP).

FILE ZCAPLUS

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FILE COVERS 1907 - 26 May 2006 VOL 144 ISS 23
FILE LAST UPDATED: 25 May 2006 (20060525/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE MEDLINE

FILE LAST UPDATED: 25 MAY 2006 (20060525/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 26 May 2006 (20060526/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 24 May 2006 (20060524/ED)

FILE BIOTECHNO

FILE LAST UPDATED: 7 JAN 2004 <20040107/UP>
FILE COVERS 1980 TO 2003.

>>> BIOTECHNO IS NO LONGER BEING UPDATED AS OF 2004 <<<

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
/CT AND BASIC INDEX <<<

FILE DRUGU

FILE LAST UPDATED: 19 MAY 2006 <20060519/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

FILE PASCAL

FILE LAST UPDATED: 22 MAY 2006 <20060522/UP>

FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE
IN THE BASIC INDEX (/BI) FIELD <<<

FILE JICST-EPLUS

FILE COVERS 1985 TO 25 MAY 2006 (20060525/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED
TERM (/CT) THESAURUS RELOAD.

FILE CABA

FILE COVERS 1973 TO 3 May 2006 (20060503/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE LIFESCI

FILE COVERS 1978 TO 12 May 2006 (20060512/ED)

FILE BIOENG

FILE LAST UPDATED: 12 MAY 2006 <20060512/UP>

FILE COVERS 1982 TO DATE

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE BASIC INDEX <<<

FILE BIOTECHDS

FILE LAST UPDATED: 24 MAY 2006 <20060524/UP>

FILE COVERS 1982 TO DATE

>>> USE OF THIS FILE IS LIMITED TO BIOTECH SUBSCRIBERS <<<

FILE VETU

FILE LAST UPDATED: 02 JAN 2002 <20020102/UP>

FILE COVERS 1983-2001

FILE VETB

FILE LAST UPDATED: 25 SEP 94 <940925/UP>

FILE COVERS 1968-1982

FILE DRUGB

>>> FILE COVERS 1964 TO 1982 - CLOSED FILE <<<

FILE SCISEARCH

FILE COVERS 1974 TO 25 May 2006 (20060525/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONF
FILE LAST UPDATED: 23 DEC 2005 <20051223/UP>
FILE COVERS 1976 TO 2005.

<<< CONF IS NO LONGER BEING UPDATED AS OF JANUARY 2006 >>>

FILE CONFSCI
FILE COVERS 1973 TO 10 Apr 2006 (20060410/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS
FILE COVERS 1861 TO 25 MAY 2006 (20060525/ED)

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